

“How can multisensory knowledge help improve consumer shopping experience?”

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Declaration page

“DECLARATION: This dissertation is the product of my own work. I agree that it may be made available for reference and photocopying at the discretion of the university.”

James Whitestone.

A handwritten signature in black ink, appearing to read "J. Whitestone", with a long horizontal flourish extending to the right.

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## Introduction

The intention of this study is to research multi-sensory senses and how they can help improve or hinder consumers' shopping experiences. Reading pre-existing literature surrounding my research question, as well as conducting an investigative self-assessment review will enable me to have an insight into our senses and what effects they have on groups of individuals.

Within this dissertation, I shall investigate the positive and negative opportunities of using multisensory knowledge within the shopping experience. This is an important issue as shops are losing custom to online sales, by using the understanding of human senses; shops can adjust to survive the appeal of the online market. My concerns about using all the senses to sell products are that there is a possibility of triggering upset to those who are overly hypersensitive, creating an overwhelming experience and putting them off the purchase. For instance, I myself find certain noises and bright lights nauseating. Shops are now waking up to the fact that certain people are hypersensitive to senses, which cause upset and distress. This creates an unpleasant shopping experience, alienating Wand thus losing customers.

2016 has seen Asda start to implement 'Happy-Hour' into some of their shops. Happy Hour is a set time in the day when Asda caters for people with ASD, (Autism Spectrum Disorder), during this time, all sounds are turned off and potentially stressful situations are eliminated. However, I believe companies could go further, conducting research into using different types of lighting, touch and smell. Sensory overload has been used in the past as a method of torture, so a company trying to create a shopping experience would want to stay clear of inducing over-stimulation. On the opposite end of the spectrum, you will find 'sensory deprivation', this is where a subject is surrounded by limited senses for a long time thus causing upset and hallucination. However, when used over a short period of time, the effect can be calming and effective in aiding the quitting of bad habits. Design is moving to be more about the overall experience rather than ]objects. Companies want people to experience a full sensual experience. Gone are the days of customers simply buying products, they now demand an interaction to create an experience with the brand. This could be online, or through social experiments such as 'Guy Cotton's, "Scroll or die." (Beltrone and Beltrone, 2017).

Shops cannot simply rely on selling a product; the more they give a personal experience, the more customers connect to the product and brand? The idea of tapping into the senses playing with colour, sound and texture can influence the customer.

There is a real need to understand visual communication and its manipulations, which can be incorporated into effective design. Knowledge of how a visual is read and understood by a customer is deeply important and this understanding of manipulation can aid future advertising and shopping experiences. The idea of influencing individuals' thought processes without the need for them having to read a product is an interesting one. Shops will need to know how sensory knowledge will effect and manipulate sales. Modern branding is more about the communication and the message behind the design. Forms of communication occur throughout all platforms including print and digital. However, these can be cumbersome and limiting, and there is nothing stopping shops communicating through; olfactory, sight and audiology communication, even if modified though print and digital advertising.

Design has to carry a message, so how can all senses be addressed within this? Branding is so short lived which is a shame as some packaging has lasted generations, yet rebranding occurs constantly as we live in an increasingly disposable world. Are the designs disposable because they are not fixing the whole solution?

"People make a subconscious judgment about a item within 90 seconds of initial viewing, and up to 90% of that assessment is based on colour" - Colour Research Institute of America, founded by Louis Cheskin. (Pont, 2013, p130)

My study has been influenced by Louis Cheskin's 'Psychological Perception theory'. Cheskin was a marketing psychologist, and he realised that you could find common factors in what appealed to people to then replicate. He studied people's emotions after being shown examples of design. There is a fine divide between grabbing peoples' attention by something being whacky and new or scaring them off from something unknown. Lindstrom (2005) highlights that as a brand we should not use a single sense, but incorporate all touch points. To a degree I concur with what he says, but sometimes the more you add, the more overwhelming and frantic it can become. I suggest that it would be better to use a handful of sensory experiences to avoid overloading the consumer. When shops have an improved understanding of senses then consumers' experiences will be very much improved (Lindstrom, 2005). I want this research project to benefit me when I leave University, as I want to work in branding and packaging. The works of people such as Sarah Hyndman have hugely inspired me.

## Chapter one: Sight.

### SIGHT

Shopping is a visual experience whether you notice it or not. It is made a visual experience through the use of: adverts, packaging, display boards and lighting. Lindstrom (2005), supports Millward Brown's claim that sight is the most seductive sense; photoreceptors within the human eye are the first stage for the light spectrum to hit. As individuals we relate to colours we have seen before, and this will naturally trigger emotive memories. My thoughts on this matter is that packaging does not appealing to all senses, therefore limiting sale possibilities. My reading finds that companies are fighting over the ability to have control over the ownership of colours, as I discuss in the following chapters.

Memories of a product or place will release memories of the past; it is the recalling of these times that release endorphins, resulting in the individual experiencing a feel-good factor. If shopping experiences can induce a good feeling that reminds you of your childhood, then shops that use these associations will have the possibility of customers returning, increasing footfall. This almost addictive feeling will have people staying longer in store, therefore introducing a higher chance of increased sales. This can be a powerful marketing tactic, as certain factors such as colour have emotive triggers related to their association. This results in company branding battles for the ownership of unique colours in connection to their brand. For example: Coke Cola's red and white packaging is universally recognised. Companies are always fighting to take hold of these connections therefore they can be hijacked. An example of this is that IBM blue is now considered connected to Pepsi.

Design is able to improve life and help those who struggle. My thoughts are trends and visuals should be in balance with theory. The Colour 'Pantone 448 c green' is now considered the world's ugliest colour and is wanted by UK legislation to be implemented on cigarette packets in order to put people off and prevent them taking up a continual use of cigarettes (Lindstrom, 2005), to aid the prevention of health implications and money spent by healthcare services.



FIG: 1  
(Pantone.com, 2017)

My theory behind why it is hated so much is that people unwittingly relate 448 c to the interiors of the 1960-70's caravans and the possible bad experiences that were associated. Therefore the flip side of triggering childhood memories can have the negative response and have the possibility of loss of returning footfall. The triggering of an upset scientifically defined, as epigenetics is known to be genetically inherited from our ancestors; tests concluded by the 'society for Neuroscience' understands this from the research of mice. Specific memories have been passed down to offspring giving them memories to instincts of the generation before them (Phenomena, 2017).

## SIGHT – TYPOGRAPHY

The high street and their shops are flooded in typography, grabbing our attention from one place to the next. Each will have a personality competing to stand out from the rest or have the aesthetic of the brand. The strategy behind creating well known typefaces can have an effect on products they are placed upon. I know this having watched the 'Font Men', (Vimeo, 2017) a film about a group of designers who ran a company (now disbanded), who designed fonts such as Gotham. A company could go to them with research and they would be able to design a font that would target a certain person or flavour.

"Consistent typefaces and appropriate use of typography will maintain our strong visual identity" (University of Cambridge, 2016). The fonts they designed possibly enhanced the experiences and tastes of products. In recent times, new sections to stores have been added to make different cultures feel at home and not alienated. However, this tactic can also give negative effects to an established customers' shopping experience, and they will be unable to recognise items and in turn feel uneasy. My studies have found that people can be easily scared of things they don't know or of culture that has been negatively spun in the news. My example is that of a design agency in Israel named 'rock paper scissors' that caused upset through their harmless tote bag that read. "This text has no other purpose than to terrify those who are afraid of the Arabic language" (Molloy, 2016).



FIG: 2  
(Molloy, 2016). & (Sultana, 2016).

Hyndman claims that fonts ‘tell a story’. The messages are subliminal and speak to the subconscious. Hyndman found that you could influence and alter experiences by the product’s aesthetic. Hyndman gave 100 members of the audience of her experiment jellybeans to eat of identical colours and flavours, but changed the branding so one style was more pointy and rigid, whilst the other was smoother. The sharper ones were thought to be sourer. This research suggests that consumers can be manipulated through stylisation and the true affects of this are still unknown and research is on going at Cambridge University. Hyndman also raised ethical issues in that sweets are bad for us but the fonts make them appealing. Children are a huge consumer market, and as Hyndman noted herself, dazed by sweet wrappers, absorbing the big fonts on Space Dust packets, appealed to her as a child. In this day and age the young are targeted by ‘feel good factors’ including jealousy and exclusivity. Even in younger years they are targeted by: sweet notes, and bright, bold attractive graphics.

Hyndman also mentions the ethical issues of attraction, particularly relating to tobacco, discussing that people are campaigning for it to be contained in plain packaging. Enticing wrapping could encourage people to buy into the dangerous product and lifestyle. An example of making cigarettes alluring is of making them into edible sweets for children. The enjoyment and the role-play of these fake cigarettes would be embedded in their minds. It is possible that enjoying these when they were children would encourage them to try out the real thing when they were older.

In this current era, consumers are waking up demanding for ethical practices around their products and bombarding ads; are shops to be made accountable for non-ethical tactics?

Hyndman focuses on typography, which plays a big part in packaging and especially in branding. Her work focuses on subliminal factors, and past instincts of survival. Could it be that reading words is another sensory experience? (Hyndman, 2016).

This suggests that the act of reading information is an interaction itself, as the brain is making connections and associations of the past, whilst also prompting historic human instincts. Eric Spekeman argues that fonts are like air; people don't think about the ones that are used all the time. Typefaces such as Helvetica were designed to be neutral and have no style, but when people cottoned on to Swiss design they used it more and more, so in the end it became a style in its own right. This contradicts what it was designed for; this font should have a neutral voice but it now suggests modernism. Fonts change in accordance with their user, and it is this whole undermining that can destroy a brand or change its values. The Nazi flag is another example of this; the regime stole the design of the Swastika, the Hindu peace symbol and flipped its orientation, twisting its original meaning.

Equipped with this knowledge, retail outlets have to be very careful in what they present to the public. The littlest and seemingly innocent detail can insult demographics and cultures without realising, thus spoiling the experience for them, and causing a potential boycott in sales. Some typefaces start with certain intent but as soon as people start using them for other reasons their meanings will most likely change. You must be careful and mindful as a designer with what your fonts are used for.

## SIGHT LIGHT

Many shops suffer from low light, the bigger the premises the bigger the problem. To solve this problem shop fitters install a multitude of light sources. This is because as humans we see the world in light, much how a camera works. Working with light and its theory can improve people's well-being. Ideally in practice, shops should design their lighting with certain colour-graded lights and refresh rate, in order to create comfort or a neutral/natural state where persons will not even notice. "Good design is obvious, great design is transparent", Joe Sparano (Cousins, 2016). Now that a lot of old styled filaments and bulbs have been banned, low energy lights have taken their place, and their style of light differs from the warm hue of the old. The difference between the two is so stark in fact they can cause discomfort and can be unwelcoming to customers. Light affects different people in different ways, and it is interesting to find what kind of light helps to sell a product.

Perhaps products could be lit from behind showing them off with an almost godly aura, or if the lighting were turned down in a shop ceiling above the aisle and backlit, then customers would be more likely to buy as an impulse?

From this knowledge of how light affects behaviour, I would recommend lights that would either associate in colour to hours of the day, or ambiance to outside temperature. 'Colour lights' by Ann Veronica Janssens explores light and colour. She constructs a visual experience whereby upon entering a room with varying patches of mist and colour it refracts; resulting in differing emotional states, thus changing perceived distance and emotion (Janssens, 2015).

For consumers seeing the hue of a cold blue might seem frightening or chilling, whereas yellow would be more warming and comforting. One future arising idea for 'points of sale' is likely to put a product in some form of tinted vapour mist to create an encompassing shopping experience. Another installation artist that experiments with light is the late Dan Flavin. Flavin made sculptural pieces made exclusively of fluorescent light fixtures and tubes that came in a limited range of colours and sizes. He was working with prefabricated materials rather than handcrafted materials, which allowed him to focus on the light itself. I am interested in Flavin's style of work and am particularly interested to know if it has any commercial aspect, such as how American neon signs are used. You cannot get the same experience from a picture, as one has to be there in person to enjoy and take in the atmosphere of an installation. Flavin played with the spectrum of light and brightness and casting light, containing it within the room. This is colour overload and sometimes it is hard to take it all in, however it can bring enjoyment to different people (The Art Story, 2016).

Another problem that may occur is the possibility of triggering or disorienting an epileptic customer. Flickering lights or low refresh rate lights should be avoided due to this problem. This shows that light experimentation can be fun, but research indicates that shops should be careful of what they emit, as people have mixed experiences of colours or light. For one lady with synaesthesia the letter "N" is sienna brown; "J" is light green; the number "8" is orange; and July is blue-ish-green (Science, 2005).

"Synaesthesia is a condition where a sensation in one of the senses, such as hearing, triggers a sensation in another, such as taste." The National Health Service predicts that four percent of United Kingdom's population have this unique 'perceptual experience' (Nhs.uk, 2017) Artists such as Carol Steen and David Hockney have this condition and their work reflects their experiences and senses affected by synaesthesia. (Uksynaesthesia.com, 2017) Synaesthesia has different effects on other

individuals and is known to have rarer forms such as 'Lexical-gustatory' this strain is thought to affect less than 0.2% of the world's population and enables the stimulated to taste sounds and feel texture within their mouths. (Noisey, 2017) If shops were aware of this then approaches could be made not to play distasteful music because their shopping experience will become more pleasant or tasteful.

## Chapter two: Sound

### SOUND

From my research, I have found that sound is used to encourage sales and comfort the average shopper's stress. Not only is sound used within a consumer environment but it also plays a huge part within branding and corporate companies. Corporations will use 'Sonic Branding' to encompass humans' 25,000 receptors in the ear. When used to its potential, 'Sonic Branding' will create a mood and feeling and people will connect and remember its link between the sound and the brand. Intel was one of the first companies to use sonic branding (Lindstrom, 2005). Sound contributes to 10% of human taste so it is important to investigate it. Research has been conducted at the University of Cambridge into the perception of music. Music changes human emotions, and it can make you happy, adrenalized, sad, thoughtful or comfortable (Greenberg et al., 2015).

People with ASD are known to listen to music that keeps them calm, however music is a personal choice and affects everyone differently. Studies have shown that music can induce more spending and a heightened sensitivity to taste; but if it causes upset to those with sensitivity. My thoughts are that music also needs to be tailored within consumer environments, for example if a track list is playing on a loop then this could not only lower customers feelings but also staff morale, as the repetition of sounds is used as an interrogation method. At Christmas the repeating of the same songs can heighten these effects. On a personal level, I will not stay long or shop at places where sounds or music is nauseating, the bleeping of machines, kids screaming and white noise. To solve this I will carry earphones to drown out said nauseous feelings. This loss of control may drive people out and online. Perhaps people shop in places that suit their tastes in atmosphere even if that means spending over the odds to enjoy their experience.

## Chapter three: Smell

### SMELL

Many retail outlets and smaller premises cannot help but create smell. “While research doesn’t clearly point to pleasant smells boosting sales, stores are embracing scent marketing to create ambience, alongside lighting and design. Many stores will diffuse fragrance through heating and air-conditioning vents” (Nassauer, 2017). This suggests that shops are seeing an instant positive reaction to the use of tapping into this sensory advantage. We know this is a success since 75% of our emotions are generated by smell and we can’t help but smell, as we smell every breath we take which is approximately 20,000 times a day (Lindstrom, 2005).

Netflix recently released a limited edition ‘binge’ candle to give away to the fans of the television series *Gilmore Girls*. The candle consisted of multiple layers of scent and colour that when burned along with watching the series, it released an aroma to match the tempo and emotions when played simultaneously. Each one of the four layers represents the four seasons to play in one swoop, which is known as binge watching. The importance of this promotional product is that it engages with the viewers not only by a visual stimulus, but also one of smell that can trigger their own memories of that smell or relate them to those playing within the TV screens. This is not only a hype tactic to build up the TV show; it is using our knowledge of the 75% of emotions released via our noses put into a real-world concept. Positive associations are made with the luxury of being within a new car due to the smell. The same can be said about the experience within the aroma of a cinema.

These positive associations are so strong that companies sell air fresheners of the scent “new car smell” (Lindstrom, 2005).

However, contrastingly, the clothing company ‘American Apparel’ finds scents distracting and have chosen not to use them in their stores. The company “deliberately omits scents from its stores because they could distract customers from the clothing and other elements of visual marketing” (Peterson, 2017). Is this a possible new direction shops may go? In China they are experimenting with changing the taste of the food by the smell or change of flavour. They first start with a gel that omits no smell or taste, and then by spraying a tailored perfume they can suggest what the gel should taste of. They call this process ‘food hacking’, as they are able to control human responses with smell. They found that the nose makes up 50-60% of our taste, so by changing the smell of a product or around it, the flavour of the food changes (VICE Video, 2017).

Another interesting idea is scent mapping. Colours are depicted as hues and smell is broken up into three different notes, which the brain detects. This relates to the same thing Hyndman (Hyndman, 2016) was tapping into, which are primal survival instincts. So the colour red may appear either sweet or dangerous.

If individuals are introduced to a satisfying scent, mood is said to improve by up to 40 percent (Lindstrom, 2005). This suggests that all the time and money spent in developments in creating a new product smell is worth the initial investment, as it can affect the sales if it is uplifting morale, especially if customer convince themselves it was worth the purchase. The power of smell is now being unlocked as a branding strategy with large companies vying to patent their unique smells. Companies such as Crayola have the understanding of why this is now important as we are introduced to their products at a young age, therefore once smelled, it can trigger a multitude of memories of our scribbling days. This as a branding tactic could be used to create new spinoff designs. (Hollis, 2007)

Brands are keen to use olfactory epigenetics as a marketing tactic to induce sales as a multisensory aid. Positive or negative experiences of smells are transferred through generations through genetics. The understanding of olfactory epigenetics is known from the research of mice and their inherited disliking to the release of acetophenone, the offspring of previous mice learning to run from its presents is transferred through the genes thus transfusing learned behaviour to the offspring (Phenomena, 2017).

This suggests that persons will be more likely to be hooked to a product or service from day one if memories are triggered as a response to epigenetics. Swizzels Matlow, who own the recipes to many childhood sweets such as Refreshers and Parma Violets are now creating spinoff products including car fresheners. This is a good move because the car care industry is worth billions, since people like to care for their cars and have a sense of pride of their ownership. This is since cars are the second biggest single purchase of our lives after homes; therefore the need to maintain its value is almost necessary. Once a brand has ownership over the rights of a smell, they can then sublicense it to other makers thus generating extra income for them as well as protecting their corporate identity. Perhaps if shops had their own custom perfume, then people would associate similar smells to their products.

## Chapter four: Touch

### TOUCH

As individuals, we have “50 receptors per 100 square mm each containing 640,000 micro-receptors dedicated to the senses” (Lindstrom, 2005, p.26). But as we get older we lose sensitivity. In the future, could a product be aimed at a target audience relative to their age and ability to enjoy the designed experience? When a person picks up product retail do not want them to endure a negative experience, this could be the result of a discomforting texture.

Tactile response within packaging design is interesting development as all bottles are much the same shape ‘round’ – why do they have to be? If bottles were square, more could be compacted into shipping therefore saving companies money. It would be interesting to see if I can find a half way between the products being appealing for people to buy and hold, as well as shipping logistics.

We are starting to see more tactile experiences within packaging design, at the time of this dissertation monster energy have released a new can covered in a bumpy, raised varnish. Confusion at first as my past “visual vocabulary” (Kochard, 2010, p60) remembered the cans style aesthetic, but it was coated in this new multi sensory experience. Monster energy’s new tactile can is still very much recognisable to its older counterparts, however it now has bumps and crevices that induce a physical interaction whilst also aiding grip and ergonomics.

Having myself been confused when introduced to holding the can, I also tested a response on a test subject who understood the brand well. His response was also high confusion and amazement. Despite not having seen it before, he recognised the brand’s underlining style, and yet it was a new product. Another layer of confusion was added when he picked up the can, as the sensory experience that ensued was not what he expected, especially when the textile bumps are not easily seen.

Kochard (2010, p60) states, “Visual illusions are very closely associated with this idea of interpretation through experience. People develop what might be called a ‘visual vocabulary’ based on what their eyes have absorbed in the past when a particular situation has been true ‘out there.’ Illusions are misinterpretations of sensations that occur because we are trying to align what we are ‘seeing’ to what we ‘know.’ Knowing this it can be a risk for a company to add new element of sensory as it is adding an unknown factor to a known item”.

Touching upon our primal instincts to things that are either safe or unsafe, perhaps this type of tactile and raised texture may in future become a distinctively recognisable element, when put into practice within a shopping experience, consumers can grab the product absent-minded still knowing they have the product they want.

I have researched into the multi-sensory facets of fonts as well as the textures, as when people pick up a product they are also having a tactile experience.

Targeted advertisements are now evolving to use haptic sensations, using vibrations to stimulate situations. These haptic feedbacks are used most in mobile apps and games, for example if you crash in a racing game the phone will vibrate, triggering a response that is not only visual. Another use is in a virtual keyboard when you type. My thoughts are that haptic technology could be used as a shopping experience.

What if you could use haptic technology to be embedded inside shops floors so when a customer walks upon it and creates an experience or a set feeling? It could be used to guide the blind around the store to certain products they intend to buy, or even guide them around other people and potential dangers. It could even be used as a guide for when children walk a set distance away from their parents, haptic technology would vibrate under and their feet, reminding them not to go any further. What if there was an app that customer could use to set off haptic reminders prompting them to buy items on their shopping list, when they walk past or warnings not to buy?

## Chapter Five Taste

### TASTE

Females have more taste buds than males, however research has found the overall response levels out, and male's taste buds will prompt the same taste palate. As we get older, our taste buds evolve and change to enjoy or dislike flavours. Lindstrom as a child experienced this in a school trip to a crisp factory. He took and ate an unflavoured cheese puff, which had completed the manufacturing process. The result was that it tasting of nothing, inducing confusion (Lindstrom, 2005). In the field of product design, you will find that the ergonomics is key; how an object is held in the hand will improve user interaction, thus building a connection with the brand. The problem with this is that most designs cater for the 'average

Joe'. What if we could balance products, reducing or heightening tactile sensitivity of the touch on the label or packaging, aiming to reduce stress? The nausea of tactile sensitivity can be best described as close to running your fingernails down a chalkboard. Another touch point is that of shapes being a visual experience as well as olfactory. The ergonomics of the mouth are important as changing the smallest detail as well as affecting different target markets can affect them. For example, the taste of chocolate can be affected enormously by taking as little as 4g off by rounding off the corners as found out by Cadbury. This small change made people perceive it as being tasting sweeter, as round things are thought to have this effect. This is found to be the same in visual designs (Fleming, 2013).

The ergonomics of the mouth have a huge and profound effect on human taste, and the enjoyment of eating. Subtle changes trying to deceive a customer will be quickly noticed, as our sensitive mouths pick up this smallest change. Galaxy is famed for having been designed to have the optimum taste, the shape is curved and soft to tickle the senses. Ergonomics of the mouth is important to products, as how it feels in the mouth will change perceptions of value, taste and enjoyment. I have been aware of the fact that there are experimental chefs like Heston Blumenthal. He ran a restaurant called the Fat Duck using science and experimentations to make an explosion of senses. People don't go there just for the food; they go for the experience (Bbc.co.uk, 2016).

Blumenthal uses multisensory cooking, food-pairing and flavour encapsulation by using two flavours that should not belong together. The oddity is what people enjoy. Food triggers memory and you know if you like it or not. You can remember the taste and the look; the act of eating can trigger stored memories. Heston Blumenthal makes food into art. He works with the senses and with vision and textures. He plays around and is creative with food, and is experimental in the kitchen with his use of

chemistry such as nitrogen in his creations. If supermarkets introduced customers to other customs through free tasters, then this would help overcome peoples' unease of the unknown. Using taste will help overcome fear and perhaps induce more sales. If more people outside of their customs purchased these items of different origin, then shops would possibly be more willing to keep them. Perhaps the use of new exciting products would attract people into buying, especially if they are sensory like many African spices. The ability to smell or taste before you buy is yet another advantage shops have over the online suppliers, as it provides additional senses.

## Marketing Psychology

With increasing research into human behaviour, how far can brands be legally allowed to push for a sale? Currently on the high street, an experience that to my mind is completely unethical is the tactics used by bookmakers and for slot machines. Most of these establishments have no real windows, natural light or clocks on the wall, therefore deliberately sabotaging the natural time cognition of the human brain. This enables an entrapment of gamblers in shops for long periods of time. Without environmental triggers, a resultant paradox of an uncontrollable urge to spend occurs. The layout of this shop floor experience is ultimately designed to contain you for even longer periods of time, right up to the point of leaving, making you spot more opportunities. (Business Insider, 2017)

These casino tactics can be found everyday in certain shops, now in 2017 Wilkinson's have introduced a filtering queue line that entraps the consumer in an airport style, forcing them within the queue, and even if they have second thoughts on whether or not to go through with the purchase, the embarrassment of causing a scene will push them to just go ahead with the purchase. From my research, I have also found that the longer the consumer holds an item in their hands, the more likely they are to complete the purchase (Lindstrom, 2005). With the introduction of these slow paced queues, the customer will be holding the items for longer and will be interacting with the goods, leading to an increased chance of purchase. "Different tactile sensations can even lead customers to interpret and interact with their surroundings in unique ways. Understanding the precise manner in which touch shapes these mindsets can help managers hit the right note when designing retail spaces." This suggests that shopping environments can lead to heightened sales and if tailored these retail spaces can give a sense of customer participation. (Harvard Business Review, 2017)

## Chapter Six Research methodologies

### Research methodologies

Within this research paper, I found myself being the meaning-maker and interpreter. From my own studies, I have commented on my own feelings and its effects, and have concluded how this can affect the proposed improvements that my dissertation will suggest. It is my understanding that I myself am the instrument of my own research methodology, and therefore may influence my results through past understanding and feeling, and will perhaps be biased.

Through my interpretation, I tested the elements of touch, sound, light, smell, and price in order to find possible connections between each element. The responses I gained were tested by self-assessment that I plotted on a radar graph after each experiment. Lindstrom influenced me to this collection of data because he himself composed statistics and numbers in similar charts (Lindstrom, 2005). I chose to do the same, as I believe that the visual aid they provide also gives instant reading to a perhaps un-relatable response. When collecting my research data, my aim was to find out if time and if any other factors would change my experience within a consumer engagement. I was also interested if price would displease my absorption of the product.

In my quest to find how to solve my question, I explored different shopping establishments. The organisations I choose to interact with three shopping supermarkets in Cheltenham and one shopping arcade. These were; Tesco, Aldi, Sainsbury and Regent Arcade. My regular shopping usage determined the shops. I wanted my test to be a natural shopping experience, and so I treated it as a usual visit.

## Chapter Seven Results

### Aldi

A calamitous shopping experience was entailed whilst at Aldi, so much so that I wanted to walk out. I set out to combine my personal shop with research in order to enable a realistic result. Despite an unpleasant and overwhelming experience, I continued my research, as I needed to go through with my own purchase. The stimuli of the overall senses plotted on my radar graph indicate coloration towards the 'unpleasant' scale on sound and light. At the time I was interpreting my surroundings; there was a displeasing atmosphere, the buzz of too many people, the sound of the checkouts together with the lighting. I was personally overloaded. This was not helped by the fact that I was stuck behind multiple bulk buyers, when in fact I was buying only one item.

From the moment I walked through the door, I was lead through an in store 'Locomotion' tactic, guiding me though a snaking path. The tactic of leading the customer in this way is not dissimilar to those strategies implemented in casinos, and in environmental triggers as referred to in my previous research. This shopping experience can be suited to a multitude of people but can be found to alienate customers if they feel as if they are being channelled though a cone like system, as other people are filtering afresh from behind.

I was aware of the fact that I was in a popular shop at Christmas; the busiest time of year therefore my results were lent to the peak point of my scale.

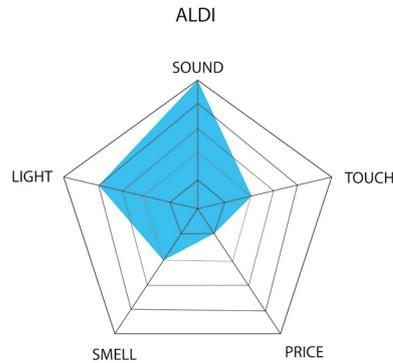


FIG: 3  
(Whitestone, 2017).

### Tesco

As I travelled throughout Tesco I was subjected to a neutral feeling, thus I found it rather lacklustre. The lighting I found to be unaspiring, stark and quite the opposite of the reactions people would have experienced in Ann Veronica Janssens experiments in light (Janssens, 2015). The flooring was a pale off-white to bounce the light around the store, and was comparable to hospital sterility, which is empty of soul and playfulness. As the store was a large supermarket these details were picked up more as I travelled through. It has been found “customers walk faster when fewer progress markers are placed along the walking path to the goal” (Van den bergh et al, 2016).

STUDY 3A: ILLUSTRATION OF THE EXPERIMENTAL DESIGN (NOT DRAWN TO SCALE); LAB SETTING; AND MANIPULATION OF MARKER SALIENCY (IRON WIRE UNDER THE MARKER).

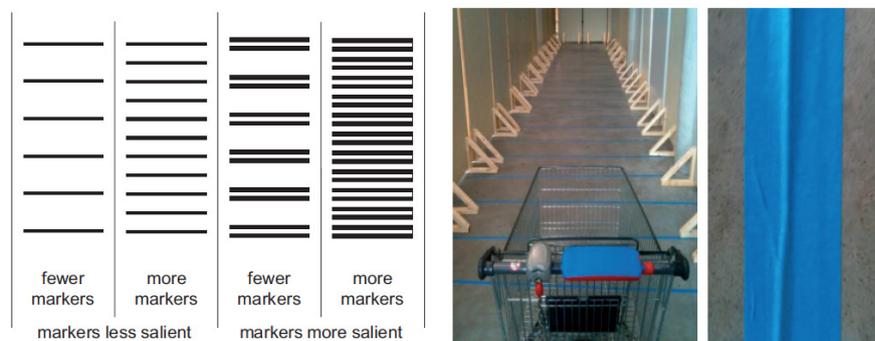


FIG: 4  
(Van den bergh et al, 2016).

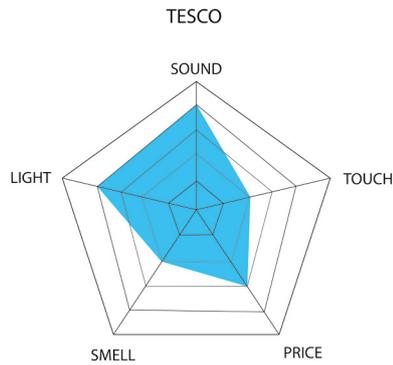


FIG: 5  
(Whitestone, 2017).

In Tesco the sound was variable as the place was so large, and has pockets of different experiences within. I passed the fish counter, the frozen aisle they all have a combined experience that are all micro-experiences within the bigger picture.

I usually find the checkout the most stressful part of shopping, and depending on my mood I choose self-checkout or a human being. This time I chose the self-checkout, despite the fact of personally disliking the patronising robot talking to me. It was made much worse as they had turned her into Santa.

### Regent Arcade

I chose to visit the Regent Arcade, as it was a centre aiming to filter customers into smaller premises. It was a vast area compact with others, and the majority of my time was spent walking around the disorderly 80%. This caused an overwhelming experience as a result of too many people, and the hassle of directional change. To improve this I would recommend the understanding of Van den Bergh's case study (Van den bergh et al, 2016). My recommendations for change or enhancements would be lanes for the slow/traffic, and another for those on the move. I advise this as Van den Bergh quotes that "80% of a shopper's time in the store is spent moving from place to Place". (Van den bergh et al, 2016)

My time spent within the shops or arcade, found me listening to the sound of music being played. It is known from my research that music is found to change human sensations. Thus adapting customer emotions, making them happy, adrenalized, or sad (Greenberg et al., 2015).

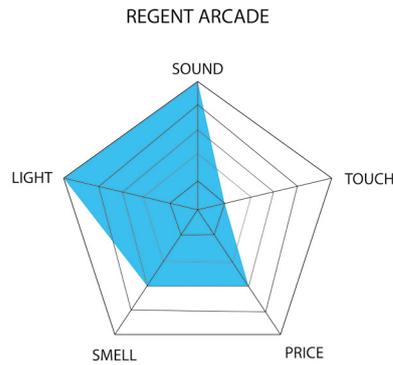


FIG: 6  
(Whitestone, 2017).

When passing through as one of the 80%, I found that the sound was not so recognisable, as the hum and noise from every shop combined to distort the overall sound. This was the same with the lighting style, as each shop you passed had a different lighting characteristic and when walking through gave a pulsating effect.

### Sainsbury's

The overall experience at Sainsbury's was a less stressful one. The environment had empathy to human emotions, with less strain on the senses, but at the cost to the customer's wallet. There was little noise and people during the time I went there, but from experience there is never much disturbance. Reflecting on my own personal interpretations, I conclude that perhaps some considerations to noise and distractions have been thought through and their knowledge of their customers' senses have been partly addressed.

The entrance welcoming in shoppers is open planned with the aroma of smells from the restaurant neither overpowering nor loud. On arrival through the entrance you are presented with non-edible products those usually being home decor or electronics. The introduction of homely additions available to buy brings a sense of attraction and interest. The front of the store is calculated in this way, as Sainsbury's is located in a complex of decor stores, most likely the footfall will be traffic migrating from places such as Homesense.

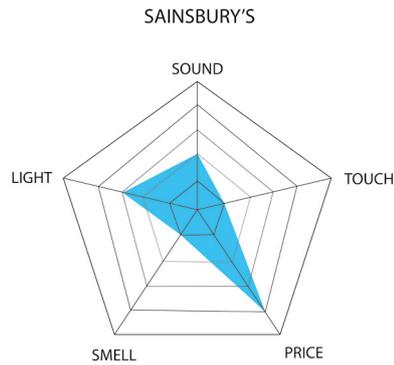


FIG: 7  
(Whitestone, 2017).

## Conclusion

From obtaining knowledge of my own I have found that many shops lack empathy and they are waking unto cater for multiple people's needs. Consumers requirements variety, and as a result will use certain shops to fulfil their wishes. This suggests that shopping experiences are not tailored to the individual but to the shop's overall effect.

My recommendations are that shops employ a specialist full time staff member, a 'multisensory manager' who's principal role is to oversee the multisensory feelings within each store, one who has an understanding of other peoples sensitivities. Another idea of mine is to have 'mystery sensory buyers'. These unique individuals would be sufferers themselves, and those who relate to the smallest sensory anomaly so they could relay their ideas for change. For example, fish counters in close proximity to flowers could cause unknowing upset, if a customer wished to buy a bouquet. Their recommendations would be relayed onto the 'multisensory manager' in person or through an app for those struggling with social interaction.

It would be interesting to find a person who had mixed experiences of senses, because they may be able to taste or see things other people do not given that their senses are heightened. It is possible we experience the same but are not aware of it. It may be something we can tap into for design. For example is there a colour or font that signifies a flavour?

Perhaps the future of interactive adverts will have to be tailored to suit hypersensitive individuals, or perhaps be turned off completely.

My research has shown a strategy is needed to give a personalised experience to as many people as possible. In the future the experience of the customers will be able to be modified on the 'fly'. One example shops could use to tailor their experience is the use of facial tracking technology. This means that shops have the ability to change the displays look, to its viewers' user profile and expression.

This hint to in the future suggests that a sale display would understand who is in front of it and would adapt. If a customer is not interested in

the advert or display then it amends to their sensual response or turns off due to sensory overload, (AdWeek, 2017). The Mazda 2017 MX-5 RF campaign utilizes facial tracking technology; it counts user interactions by counting the number of heads turned. However this experience is not individual and could be improved to aid a customers shopping experience, by allowing it to adapt to data gathered by facial recognition. (Gianatasio and Gianatasio, 2017).

My thoughts are that, if supermarkets can adjust their sterile feelings to a more user-friendly approach, then their sales will increase, and the high street will become a place to relax.

Further understanding of multisensory interaction with customers may induce more sales as a result. Shops found to be using these multisensory strategies and knowledge correctly will push customers to spend not only with their mind but also their heart, noses, ears and overall sensory enjoyment.

End.

## BIBLIOGRAPHY

AdWeek. (2017). These Smart Retail Shelves Tell Brands All About Who Is Looking at Their Products. [online] Available at: <http://www.adweek.com/news/technology/these-smart-retail-shelves-tell-brands-all-about-who-looking-their-products-175498> [Accessed 13 Jan. 2017].

Bbc.co.uk. (2016). BBC - Food - Chefs : Heston Blumenthal recipes. [online] Available at: [http://www.bbc.co.uk/food/chefs/heston\\_blumenthal](http://www.bbc.co.uk/food/chefs/heston_blumenthal) [Accessed 6 May 2016].

Beltrone, G. and Beltrone, G. (2017). Ad of the Day: Life Jacket Maker's Chilling Site Makes You Feel Like You're Drowning. [online] Adweek.com. Available at: <http://www.adweek.com/brand-marketing/ad-day-life-jacket-makers-chilling-site-makes-you-feel-youre-drowning-157228/> [Accessed 8 Feb. 2017].

Business Insider. (2017). 9 Tricks Casinos Use To Make You Spend More Money. [online] Available at: <http://www.businessinsider.com/how-casinos-make-you-spend-money-2014-8?IR=T> [Accessed 9 Feb. 2017].

Cousins, 2016).[online] Available at: <https://designshack.net/articles/inspiration/20-design-quotes-and-what-they-can-inspire/> [Accessed 11 Nov. 2016].

Fleming, A. (2013). Cadbury Dairy Milk: why rounded chunks of chocolate taste sweeter. [online] the Guardian. Available at: <http://www.theguardian.com/lifeandstyle/wordofmouth/2013/oct/01/cadbury-dairy-milk-rounded-chunks-chocolate-sweeter> [Accessed 22 Apr. 2016].

Gianatasio, D. and Gianatasio, D. (2017). This Mazda Billboard Scans the Crowd to Keep a Tally of How Often the Car Literally Turns Heads. [online] Adweek.com. Available at: <http://www.adweek.com/creativity/this-mazda-ad-scans-the-crowd-to-keep-a-running-tally-of-how-often-the-car-turns-heads/> [Accessed 9 Feb. 2017].

Greenberg, D., Baron-Cohen, S., Stillwell, D., Kosinski, M. and Rentfrow, P. (2015). Musical Preferences are Linked to Cognitive Styles. PLOS ONE, 10(7), p.e0131151.

Harvard Business Review. (2017). Please Touch the Merchandise. [online] Available at: <https://hbr.org/2011/12/please-touch-the-merchandise> [Accessed 10 Feb. 2017].

Hollis, N. (2007). SMELLY BUSINESS The dollars and scents of brand building. ESOMAR Fragrance, pp.1-32.

Hyndman, (2016). [online] Available at: <http://www.sarahhyndman.com> - [Accessed 22 Apr. 2016].

Hyndman, S. (2016). Why fonts matter. 1st ed. Berkeley, CA: Gingko Press.

Islamophobes. [online] The Telegraph. Available at: <http://www.telegraph.co.uk/news/2016/08/18/the-genius-arabic-message-on-this-bag-is-designed-to-terrify-isl/> [Accessed 11 Nov. 2016].

Janssens A (2015): Anon, (2016). [online] Available at: [http://www.studyskills.soton.ac.uk/research\\_skills/Research project\\_Schedule.do](http://www.studyskills.soton.ac.uk/research_skills/Research_project_Schedule.do) [Accessed 6 May 2016].

Kochard, LEJW 2010, Sustainable Graphic Design, Wiley, . Available from: ProQuest Ebook Central. [25 November 2016].

Lindström, M. (2005). Brand sense. 1st ed. New York: Free Press.

Molloy, M. (2016). The Arabic message on this bag is designed to 'terrify'

Nassauer, S. (2017). Using Scent as a Marketing Tool, Stores Hope It--and Shoppers--Will Linger. [online] WSJ. Available at: <http://www.wsj.com/articles/SB10001424052702303468704579573953132979382> [Accessed 27 Jan. 2017].

Nhs.uk. (2017). Synaesthesia - NHS Choices. [online] Available at: <http://www.nhs.uk/conditions/synaesthesia/Pages/Introduction.aspx> [Accessed 10 Feb. 2017].

Noisey. (2017). We Asked a Guy with Synesthesia What a Bunch of Songs Taste Like - Noisey. [online] Available at: [https://noisey.vice.com/en\\_us/article/we-asked-a-guy-with-synaesthesia-what-a-bunch-of-songs-taste-like?utm\\_source=mbfb](https://noisey.vice.com/en_us/article/we-asked-a-guy-with-synaesthesia-what-a-bunch-of-songs-taste-like?utm_source=mbfb) [Accessed 10 Feb. 2017].

Pantone.com. (2017). PANTONE 448 C - find a PANTONE Color. [online] Available at: <https://www.pantone.com/color-finder/448-C> [Accessed 12 Feb. 2017].

Peterson, H. (2017). How Stores Use Scents To Manipulate You Into Spending More Money. [online] Business Insider. Available at: <http://www.businessinsider.com/how-stores-lure-customers-with-scents-2014-5?IR=T> [Accessed 27 Jan. 2017].

Phenomena. (2017). Mice Inherit Specific Memories, Because Epigenetics?. [online] Available at: <http://phenomena.nationalgeographic.com/2013/12/01/mice-inherit-specific-memories-because-epigenetics/> [Accessed 8 Feb. 2017].

Pont, S. (2013). *The better mousetrap*. 1st ed. London: Kogan Page.130

Science, L. (2017). Rare but Real: People Who Feel, Taste and Hear Color. [online] Live Science. Available at: <http://www.livescience.com/169-rare-real-people-feel-taste-hear-color.html> [Accessed 10 Feb. 2017].

Science, L. (2005). Rare but Real: People Who Feel, Taste and Hear Color. [online] Live Science. Available at: <http://www.livescience.com/169-rare-real-people-feel-taste-hear-color.html> [Accessed 6 May 2016].

The Art Story. (2016). Dan Flavin Biography, Art, and Analysis of Works. [online] Available at: <http://www.theartstory.org/artist-flavin-dan.htm> [Accessed 6 May 2016].

Uksynaesthesia.com. (2017). UK Synaesthesia Association: What is Synaesthesia?. [online] Available at: <http://www.uksynaesthesia.com/whatis.html> [Accessed 10 Feb. 2017].

University of Cambridge. (2016). Typography. [online] Available at: <https://www.cam.ac.uk/brand-resources/guidelines/typography/> [Accessed 6 May 2016].

Van den bergh, B, Heuvinck, N, Schellekens, G, & Vermeir, I 2016, 'Altering Speed of Locomotion', *Journal Of Consumer Research*, 43, 3, pp. 407-428, Business Source Complete, EBSCOhost, viewed 3 February 2017.

VICE Video. (2017). Food Perfume - Food Hacking - VICE Video. [online] Available at: <https://video.vice.com/alps/video/food-hacking-food-perfume/57044342aa9607a95d9ce0a9> [Accessed 27 Jan. 2017].

Vimeo. (2017). Font Men - SXSW 2014 Official Documentary Short Selection. [online] Available at: <https://vimeo.com/88318922> [Accessed 10 Feb. 2017].

yellowbluepink. [online] Wellcomecollection.org. Available at: <https://wellcomecollection.org/exhibitions/states-mind-ann-veronica-janssens> [Accessed 22 Apr. 2016].

