

Human Decision-Making and the Semiotics of Sensory Signals



Successful brands understand both the universal qualities of human behaviour and the cultural context of the local markets in which they operate. Thus, good brand management integrates universals of human nature with locally relevant nurturing through the prism of culture.

So do semiotics and neuromarketing have much in common? Although there has been little interaction between behavioural scientists and semioticians, they share more than is commonly acknowledged and are often solving the same problem from different perspectives.

Context, context, context

Behavioural economics experiments consistently show the crucial role that environmental cues play in shaping human behaviour, when even the smallest change to the context of a decision can change that decision (Kahneman, 2012). **Semiotics** looks from the opposite direction to understand the 'meanings' that culture creates for signs and symbols in the world around us (Danesi, 2006; 2007).

But aren't the two disciplines really doing the same thing? In reality, the **brain is a highly sophisticated pattern recognition machine**. As information floods in to the brain through the senses, it is analysed for patterns that have 'meaning' in shaping our decisions to help us achieve our goals (Bruner, 1990; Frith, 2007; Gregory, 2009).

Sensory perception is the interface between the outside world of signs and symbols and the 'inner' world of the human mind and its decision-making processes. The senses are our signal detection system (like a radar) that act as transducers, converting physical and chemical information from photons of light, sounds waves, food particles and the body's physical feedback mechanisms into electrical signals forming patterns in the brain and meaning in the mind (Roberts, 2002).

Universal and cultural signs

What do I mean by 'meaning'? Think of the taste of sugar on your tongue. Even newborn infants are already primed to like sweet tastes, as the meaning of 'sweet' is that something is nutritious and contains energy (generally a very positive meaning until very recently in human history). Likewise, even young babies do not like bitter tastes, which are associated in nature with substances that are toxic. **These are universal 'signs'.**

A very simple example of a more 'cultural' meaning is the flavour Wintergreen, which was rated as the best liked smell in America in one study, while at the same time it was least liked by those in the UK (superficially a very similar culture). The reason for this is that many Americans are first introduced to Wintergreen as candy, while for the British it's more likely to be first encountered as the taste of medicine.

Our memories store information associatively, linking meanings to experiences, which is why analogy and metaphor are so pervasive and powerful (Lakoff & Turner, 1980; Hofstadter, 2001). These associations form the basis of the meaning we attach to everything around us, and most particularly whether we associate something with a positive experience or a negative experience (within a specific context). One definition of 'culture' would be the collective sum of the associations and meanings shared by any group of people.

The evolution of human goals

The meanings that humans seek go beyond good and bad (or approach versus avoid). Recent work in evolutionary psychology indicates that the mind is not a single holistic entity, but rather a number of (sometimes competing) systems with specific goals associated with successful strategies (by which I mean evolutionary success, see Kendrick & Griskevicius, 2013; Panksepp & Biven, 2012).

In humans, these systems number at least 12 (beyond the basic drives like hunger). These human goals are reflected in the StoryWorks model of brand emotions and motivation, which includes belonging, care, idealism, authority, understanding, transformation, courage, creativity, individuality, freedom, play and intimacy expressed through universal archetypes (Gains, 2013; see Figure 1).

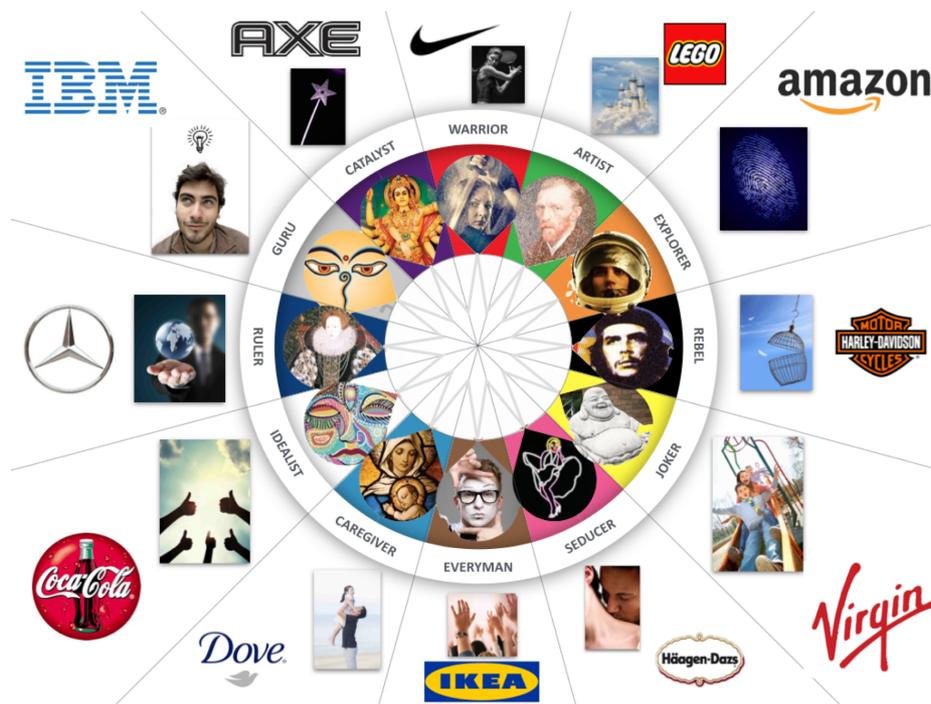


Figure 1 – 12
Human goals with
example brands ©
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Brands and emotional signals

Recent work in evolutionary psychology shows that these goals or motivations are ‘hard wired’ into the brain, each running through an independent bundle of neural circuits that effectively take control of decision-making according to the context and therefore the most relevant goal. If you are scared, and your brain focuses on the goal of self-protection, not only do you focus on signs that area associated with this goal, you ignore those that are not relevant.

That’s why successful brands can help users to maximise the emotional rewards associated with achieving their goals by sending the right signals. For example, Nike focuses on the goal of bravery, courage and strength across all their communications and how this can be achieved both for professional athletes and amateurs. Nike communicates these meanings through its advertising, as well as the symbolism of its name and logo too.

Sensory meanings

But can such meanings also be communicated through the senses? And can semiotics inform the design of products and experiences as well as the communication of ideas? I believe they can, and moreover that **the meanings derived from experience are often more powerful and lasting than those that come from words** (Bergen, 2012).

Most of the published work on sensory branding and marketing has focused on the latter rather than the former – **looking at the importance of the senses in creating customer engagement, but with much less emphasis on the symbolic value of sensory experience in creating brand meaning** (Lindstrom, 2010; Krishna, 2013). However, **the best brand experiences are ones that have meaning.**

Stories, symbols and senses

One of my favourite examples of sensory branding is Dettol, which works at three different levels at communicating its meaning (see Figure 2). The story of Dettol is its “Mission for health”, symbolised through a sword that dominates the logo. The sensory experience reinforces this symbolism, through a distinctive and strong antiseptic smell and a visually impactful white coloured milky emulsion that is produced as soon as it is mixed with water. The brand story, the pack symbolism and the sensory signature all create a strong link to the brand promise (associated with the same goal as Nike – the courage to “fight the fight” for cleanliness and health).



Figure 2 – Dettol brand (image source: Ekkamai Chaikanta / Shutterstock.com)

The smell of Dettol is instantly recognisable to anyone who has ever used the brand, as is the ‘ouzo effect’ of the white coloured milky emulsion produced when it is mixed with water. These aspects of the sensory experience signal the potency and activity of Dettol’s disinfectant chemicals, creating a strong link between product use and efficacy. The smell is used as a sensory signature across Dettol’s range of products around the world.

So how can market research combine semiotic thinking with the latest understanding of human decision-making? TapestryWorks believe that semiotic thinking can contribute to building non-verbal research tools and have developed our own visual vocabularies for exploring human emotions and sensory experience.

Metaphors and visual thinking

I mentioned earlier that metaphor reflects the ‘language’ of the brain, as **the majority of the brain’s activity is focused on processing sensory information, 90% of which is visual.** We know that the (decision-making) brain thinks much more in the language of physical (sensory)

experience than in words. We also know that humans are much better at recognising something that has been experienced before than in recalling or retrieving a memory of a past experience.

Although, projective techniques have been used in market research for a long time, they have most often been used in a very open way without underlying structure or frameworks. One approach is to develop visual stimuli that can be linked back to a standard framework to aid interpretation. TapestryWorks have done this both for human motivations and the emotions associated with positive and negative outcomes, as well as for the full variety of sensory experiences.

For sensory experience, we then broke down each aspect into binary oppositions (where possible) to create a set of double-sided cards that have proved invaluable in helping clients explore the senses in primary research. The tool helps clients capture implicit associations and non-verbal categorisations (in Daniel Kahneman's System 1) through a simple card sort.

Semiotics and primary research

In a recent study in Indonesia, we helped a client understand implicit perceptions of two beverages through a series of visual card sorts, helping them decode the differences between their new product variant and a strong market leader. The cards revealed that the key advantage of the market leader was its association with carefree states of mind. This was strongly linked to the experience of consumption, which was perceived as very mild and gentle experience (the client's brand was seen as more intense and strong), and as very simple and soft (where the client's brand was seen as more complex and hard edged – see Figure 3 for an example of the cards).

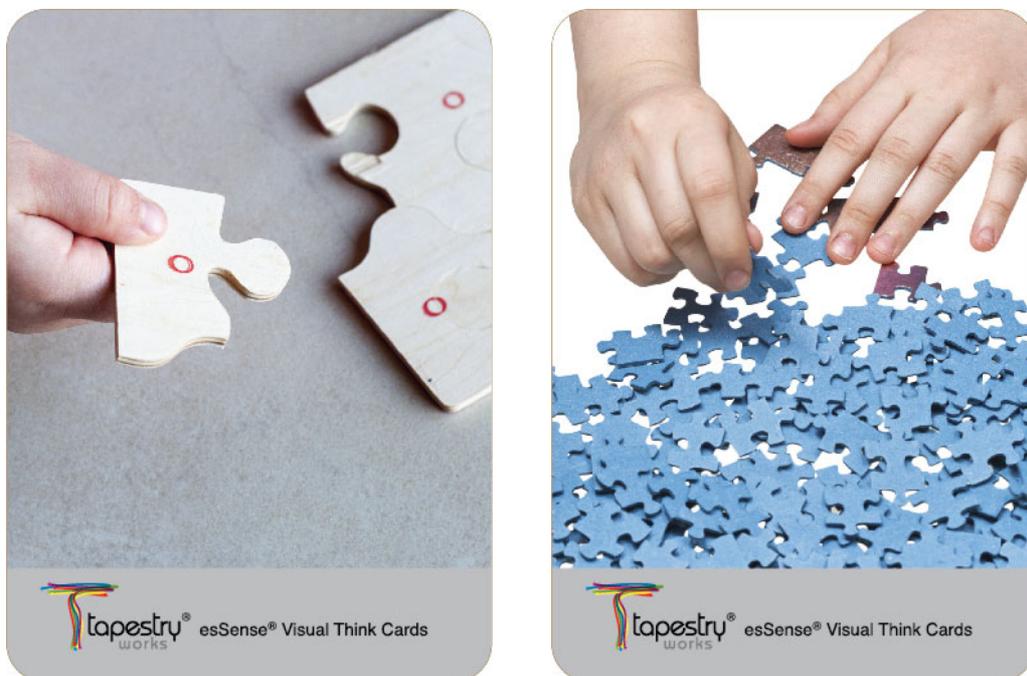


Figure 3 – Binary opposition of Simple vs Complex © TapestryWorks

Based on the research, we were able to recommend that the client revise a number of aspects of product and packaging execution, in order to create an experience that was more comparable with their target customers' goals. This included removing visual and verbal packaging cues that were associated with a sweeter and milkier drinking experience (and therefore creating a perception of a more intense flavour), and adding visual cues for natural (the proposed packaging was seen as relatively artificial).

Semiotics and behavioural science

In summary, behavioural science teaches us that implicit decision-making works in a very different way to that assumed by many standard market research approaches. Specifically, most of the brain's experience of the world is non-verbal. The best way to understand implicit decision-making is through approaches that work non-verbally to access the meanings that people attach to brands, products and experiences.

As the science of symbolism, semiotics has much to contribute to developing market research tools that can help businesses better understand brand meanings, both by looking from the outside in to decode cultural meanings, and also crucially from the inside out to access how those meanings shape individual human decisions.

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This is the second in TapestryWorks' series of case studies and white papers. TapestryWorks decodes people and culture to build consistent meaning into brand experiences. We help build culture sense for brands.