

May 2019

# IPSOS VIEWS

We see with our mind,  
not just with our eyes

by Colin Ho and Ian Payne





People don't just see a product's colors, shape or size. While our eyes are the windows through which visual input enters, it is the brain that gives meaning to what we see.

**Seeing is not only about our eyes, but our mind as well. It may be overlooked, but our brains are an integral part in observing what surrounds us. Our ability to see is by far the most powerful and complex of our three primary senses. The number of brain cells devoted to visual processing take up about 30 percent of the cortex, as compared with eight percent for touch and just three percent for hearing. Biologically, we are wired to rely heavily on vision to guide our decisions in the world.**

This is the focus of our paper: People don't just see a product's colors, shape or size. While our eyes are the windows through which visual input enters, it is the brain that gives meaning to what we see. Our brain extracts meaning instantaneously and instinctively, which influences our preferences and behavior towards a product. Our perception is very much influenced by our knowledge and understanding of the world. While research often examines what responses a product's appearance sparks, most do not **link the responses back to the visual features that**

**triggered them.** This is a critical omission in existing research and our focus. If we knew precisely what physical features triggered which perceptions (e.g., blue color triggers perceptions of modern), designers can more precisely create products that connect the desired psychological responses.

Two macro trends provide strong reasons why we should pay increased attention to product appearance and their impact. The first is the rapid growth of online sales (E-Commerce Worldwide, Statista, 2018). As sales shift online, product appearance takes on a more influential role. The second macro trend is functional equivalency (Schutte et al, 2004). With increased accessibility to advanced manufacturing technology, it is becoming more difficult today for consumers to differentiate products on performance. When this happens, the design of a product takes on a larger importance. All else equal, consumers will go with the more attractive product.

# SEEING IS BELIEVING AND FEELING

We start with a simple framework to guide our thinking (see Figure 1). In this framework, the appearance of a product impacts our “head” and “heart”

(labeled as cognitive and affective, respectively).

This psychological response, in turn, influences our behavior towards the product.

**Figure 1**



Product appearance includes color, shape, patterns, texture, size, features and anything observable in the product. “Cognitive” includes beliefs or inferred associations about the product such as its perceived efficacy, or whether it is a premium or cheap product. “Affective” captures our feelings towards the product, such as do we like what we see or not? While we refer to cognitive and affective responses as though they are separate and independent, the two co-exist and interact. These triggered beliefs/associations influence how a product will be judged.

We share the findings from three case studies. The first fits in the discovery phase of a product development process – a phase to acquire deep foundational knowledge of the role visual elements play in a product category. The second and third are examples of “screening” studies: when we have several innovation candidates and we would like to understand consumers’ reactions to each of them.

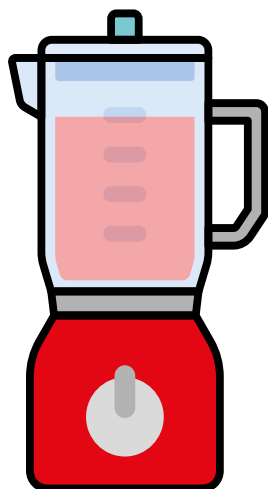
# CASE STUDY ONE: WHEN A KITCHEN APPLIANCE IS NOT JUST A KITCHEN APPLIANCE...

In this study, we wanted to quantify the impact of appearances of small kitchen appliances on their overall appeal. Consumers were shown product images along with information typically provided by online retailers (i.e., brand, price and a brief description of the features). We tested over a hundred products across two countries but consumers evaluated only a few products to make the task less burdensome.

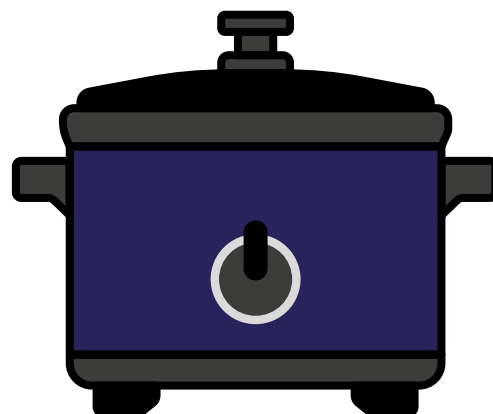
After seeing each product, respondents shared their immediate thoughts via an open-ended question. The question was “what are the first three things

that come to mind when seeing/reading about this product?” To discourage overthinking and capture people’s automatic responses to visual cues (i.e., System 1 thinking), respondents were given 15 seconds to respond to the open-ended question. We also asked consumers to rate the products on appearance, brand, price, functionality and overall appeal. Responses to the open-ended question were text analyzed. We share two examples below to illustrate the open-ended responses we got. Visual themes dominated consumers’ immediate responses to the products (see Figure 3).

Figure 2



**Like Color: 8%**  
**Retro: 5%**  
**Garish: 17%**

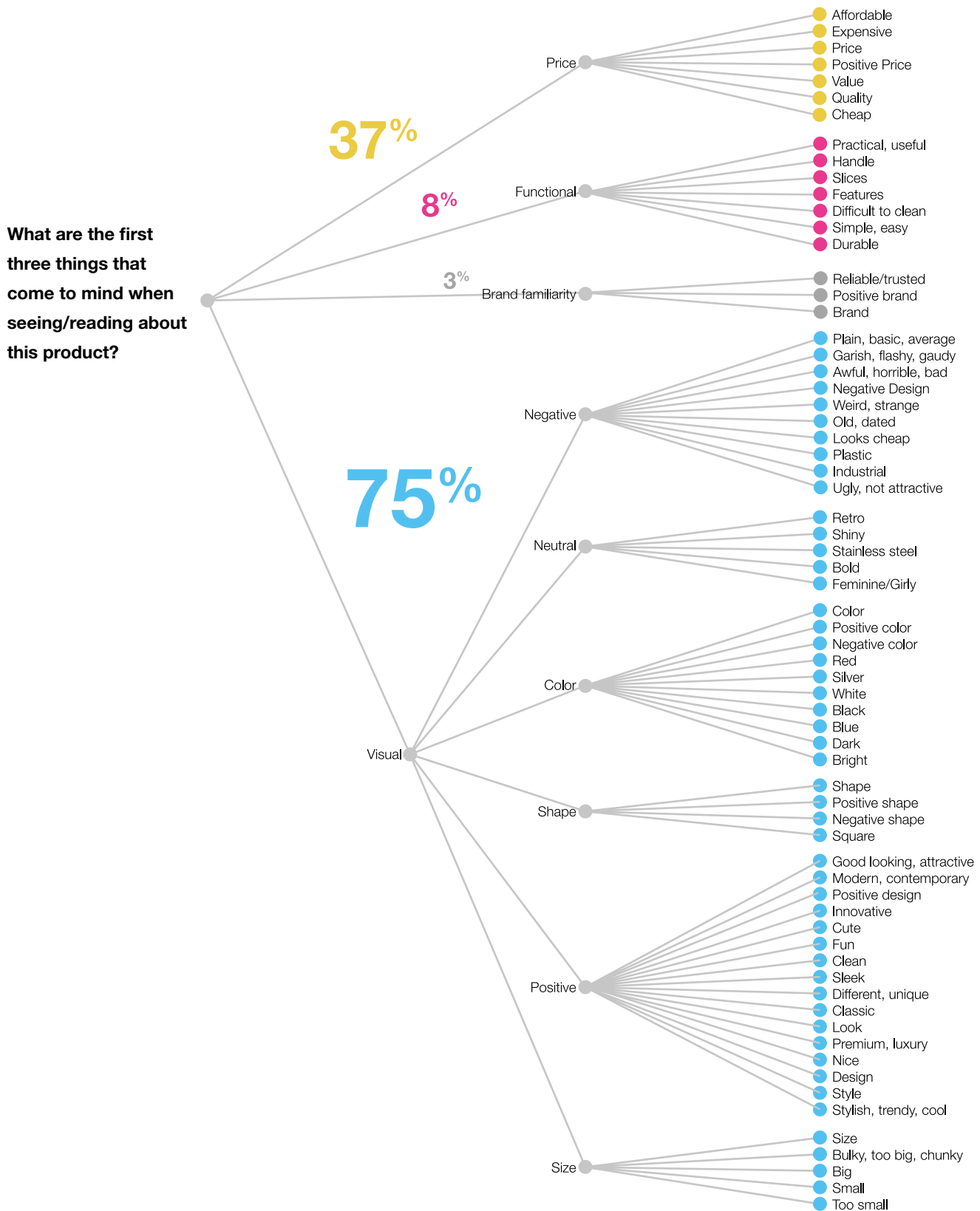


**Good looking: 21%**  
**Stylish: 8%**  
**Modern: 8%**  
**Sleek: 4%**

Within “visual”, both cognitive and affective responses were present. The products’ appearances generated beliefs/associations (e.g., “innovative”, “premium”, “feminine”) and affective responses (e.g., “nice”, “cute”, “horrible”).

Using the rating questions, a predictive model was used to understand the relative impact of appearance, brand, price and functionality on overall appeal. Appearance had a relative impact of about 70% compared to brand, price and functionality.

Figure 3 – Responses to small kitchen appliances



The relative impact of the appearance rating on overall appeal is very close to the percentage of open-ended responses that were appearance-related (75%) and provides converging evidence that product appearance is very important in small kitchen appliances. This is not surprising as consumers often look for appliances to fit in with their home décor.

For our approach to be of value, however, the true test was whether we could link specific responses back to specific visual features. The answer was a resounding “yes”. In Figure 4, we share a few select findings.

We see that blue triggered perceptions that the appliance is attractive, retro and stylish, whereas black triggered perceptions of modern and sleek. Some colors and features were polarizing. Red, for instance, triggered positive feelings in some individuals but negative feelings in others (e.g.,

garish, gaudy). The shape of the appliance also influences what we “see”. An appliance with a tear drop shape is more likely to trigger perceptions of stylish/sleek whereas a kettle with straight lines is more likely to trigger perceptions of modern/contemporary. Like color, shapes were polarizing too. A kettle with straight lines, for example, was also likely to trigger perceptions that the appliance was “boring”.

By linking a product’s physical features with the responses it sparks, we can better guide designers to create products that trigger a specific psychological response. For example, if the goal is to design a modern, stylish and sleek appliance, a black-colored appliance with a tear drop shape would be one possibility. Doing this research in the discovery phase enables us to craft a stronger design brief and achieve a better design earlier in the product development process.

Figure 4

COLORS

| POSITIVE                                                                            |                            | NEGATIVE |                    |
|-------------------------------------------------------------------------------------|----------------------------|----------|--------------------|
|  | Attractive, retro, stylish |          | Old, dated         |
|  | Modern, sleek              |          | n/a                |
|  | Positive, retro            |          | Garish, gaudy      |
|  | n/a                        |          | Ugly, awful, dated |

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| POSITIVE                                                                            |                      | NEGATIVE |            |
|-------------------------------------------------------------------------------------|----------------------|----------|------------|
|  | Stylish, sleek       |          | Old, dated |
|  | Modern, contemporary |          | Boring     |
|  | Cute                 |          |            |



## CASE STUDY TWO: THE IMPACT OF COLOR, DESIGN, MATERIAL AND SHAPE ON FRAGRANCE DIFFUSERS' PREFERENCE

In the second study, we examined the impact of new fragrance diffusers' appearance on preference. If you are not familiar with a fragrance diffuser, it is, in basic terms, a container which releases a fragrance into the air using oil (see Figure 5 for an example).

**Figure 5 – Example of fragrance diffuser**



Respondents indicated their preference for 16 fragrance diffusers randomly selected from a pool of 20 in a tournament-like exercise. Each respondent was shown pairs of fragrance diffusers and asked to indicate which one was preferred. The winner of each

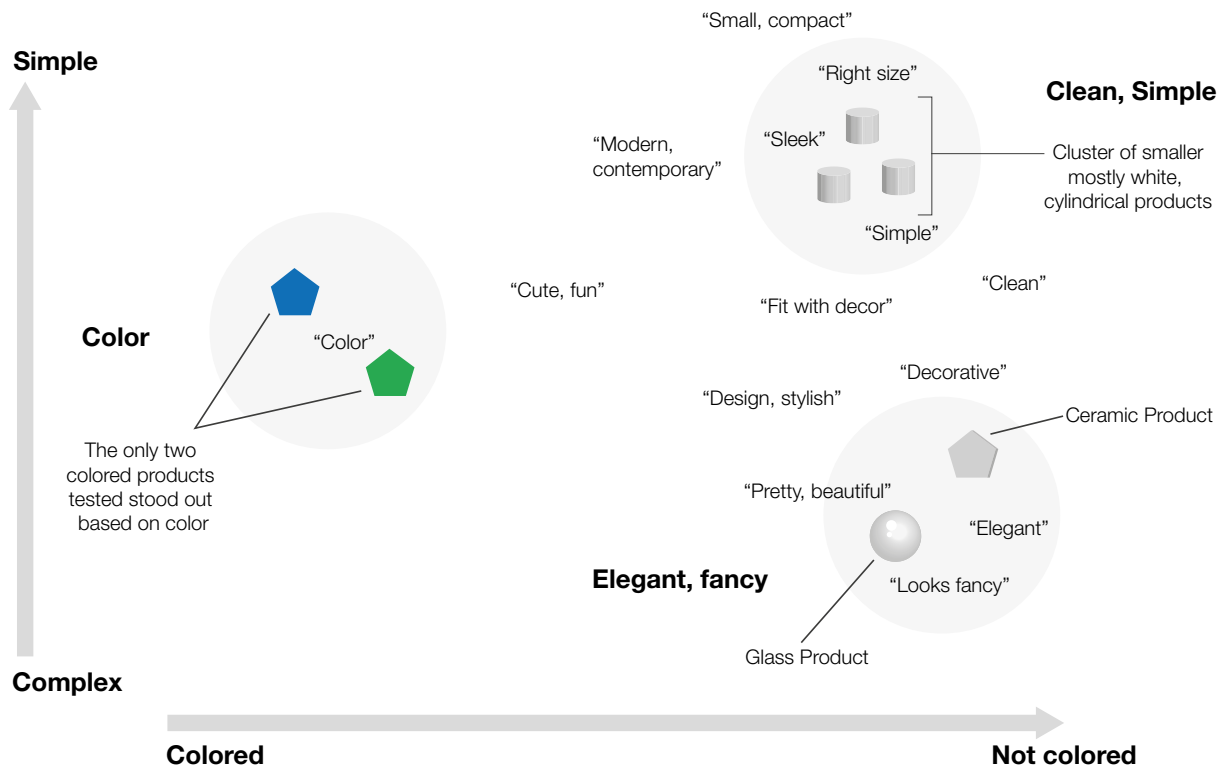
tournament advances to the next round.

At the end of this exercise, respondents were asked to answer an open-ended question for the top four winners of the tournament exercise. This open-ended question captured consumers' responses to the new products. Unlike the small appliance study, we did not provide any additional information beyond images of the products so responses to the fragrance products can only be driven by their appearance. The responses to the open-ended question were text analyzed and visualized (see Figure 6). To keep the visualization uncluttered, we show only seven out of the 20 products tested.

The fragrance innovations were primarily viewed as colored/not colored and complex/simple. These responses were predictive of preference in the paired exercise. For example, innovations perceived as stylish and elegant were more likely to be chosen in the tournament exercise.

As in the first case study, we were able to link specific responses with observable features of the product. For example, innovations made of glass or ceramic were associated with perceptions of elegance/fancy (bottom right of Figure 6). A cylindrical shape and the color white was associated with perceptions of simplicity and "clean" (top right of Figure 6). These linkages make the research actionable.

Figure 6: Responses to fragrance innovations



Even if a product has the best functionalities, if the appearance of the product does not trigger the right associations, consumers may not consider/purchase the product.



## CASE STUDY THREE: IF IT LOOKS STRONG, IT MUST BE STRONG

In the third case study, consumers were asked to share their reactions to mouthwash in different colors. The goal of this study was to understand if the color of the mouthwash triggers specific beliefs/associations and affect. As in the previous two studies, consumers provided their responses by answering an open-ended question. Respondents also rated the products on overall opinion and efficacy. The results showed that color influenced consumers' beliefs/associations and feelings about the mouthwash (see Figure 7).

The light green and light blue mouthwash were viewed as “gentle”, “weak” and “ineffective”. White was perceived as “watery”, “dull” and “boring” (contrary to what some might hypothesized, that white cleans better). Purple was viewed as “strong” and “powerful”. These beliefs and feelings about the products (e.g., gentle, weak, strong) were found to be predictive of overall opinion/efficacy of the cleaning product.

Figure 7 – Responses to mouthwash colors



## LOOKS MATTER

Despite what you may have been told, looks matter! We instinctively judge people by their appearance and we judge objects similarly. Our three case studies were about products' appearances, but we expect the same ideas to apply to packaging as well. More generally, any product visual stimuli can impact consumers' associations with the product and their

subsequent inclination to purchase or not. Despite our best intentions not to judge by appearance, our brain automatically and instinctively does. Finding precisely which physical features trigger which psychological response gives manufacturers a competitive advantage.

## REFERENCES

Schutte, S. T., Ecklund, J., Axelsson, J.R., Nagamachi, M. (2004). Concepts, methods and tools in Kansei Engineering. Theoretical issues in ergonomic science, 5(3), 214-231.



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