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THE CULT OF PERSONALITY: EXPLORING BRAND ATTRIBUTES IN A RESEARCH-DRIVEN PRODUCT DEVELOPMENT PARTNERSHIP BETWEEN INDUSTRY AND ACADEMIA

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ABSTRACT:

This paper describes a funded research collaboration that involved an industry sponsor, faculty, graduate students, and undergraduate students. The research methods developed for this project offer an interesting paradigm for examining the role of brand personality in new product development. A new method, a unique derivation of the Product Personality Assignment, was devised to ask respondents to assign personalities to particular areas or features on a product rather than the entire product itself. A combination of quantitative and qualitative data facilitated the collaborative development of a product character vocabulary and a brand DNA which informed the redesign of the product's form, color, material, texture, details, and brand.

This paper explains the research methods used to capture latent user preferences and efforts to integrate them into the redesign of an existing product. With the description herein we hope to stimulate avenues for further research with the Personality Assignment method.

1. INTRODUCTION

This paper describes a sponsored partnership between academia and industry that sought to harness the research and product development potential of an academic unit to serve the brand and design needs of real-world client. The methods developed and utilized for the redesign of a generator offer an example of how academic units may customize their service offerings to best satisfy the educational needs of students and faculty while providing truly innovative solutions for a client. The methodology described herein offers a unique yet adaptable approach to exploring the formal and experiential product properties that shape and inform design research and development in the context of product personality and brand DNA.

2. PRODUCT PERSONALITY ASSIGNMENT AND BRAND DNA

As brands become increasingly more experiential in nature, the need for advancement in brand research methods becomes paramount in the efforts to understand consumer response to new products and offerings. Studies on consumer perception of brand attributes are quite common and the data collection and analysis methods used in these studies are even more common, but as brand offerings become more sophisticated so, too, must the research methods used to understand consumer response.

Brand Experience vs. Product Experience

The socio-economic shift from a commodity base to an experience base has forced companies to find ways of embedding experiences into their products in order to satisfy the modern consumer and their experiential needs (Pine & Gilmore 1999, Zastrow 2003). Stan Rapp CEO of New York-based McCann Relationship Marketing Worldwide, states that, “brand experience directly affects the relationship between company and consumer and contributes to the long-term value of business” (Quarry 2002). Daryl Travis (2000, p. 80) author of Emotional Branding states that, “The brand simply becomes nothing more than an artifact that points the way to an experience.” In

order to define that “experience” Pine and Gilmore (1999, p. 12) state that, “Experiences are events that engage individuals in a personal way.” They go on to point out that;

“Most product designers focus primarily on the internal mechanics of the good itself: how it performs. What if the attention centered instead on the individual’s use of the good? The focus would then shift to the user: how the individual performs while using the good.” (p. 15)

Here, Pine and Gilmore reference the responsibility of the product designer with regards to how consumers interact with products and suggest a refocus from functional benefits to experiential benefits. Noted author Bernd Schmitt, regarding modern consumers, states, “What [consumers] want [are] products, communications and marketing campaigns that dazzle their senses, touch their hearts and stimulate their minds” (Quarry 2002, paragraph 13). As consumers seek more experiential products and services, companies will need to find ways to establish greater brand equity through highly sophisticated products that speak to their consumer’s emotional needs (Pine & Gilmore 1999, Travis 2000, Schmitt 1999). Regarding the product experience Patrick Jordan (2000) writes;

“A product can be defined by its properties. Properties can be either formal or experiential. Formal product properties are those that can be objectively measured or that have a clear and fairly unambiguous definition within the context of design. Experiential properties, meanwhile, are those that are defined in the context in which the product exists and of the views, attitudes and expectations of the people experiencing the product.” (p. 87)

Jordan refers to the specific attitudes that motivate as well as confirm product choice based on consumer needs that are grounded in both the experience of the product and the formal properties of the product. In short, consumer experiences as a result of a product or brand can be seen as sensorial in nature and that consumers have specific experience or sensory needs (Pine & Gilmore 1999). Studies regarding the assignment of personalities to products have been essential in the understanding of the ‘experiential properties’ of products (Jordan 2000, p. 187).

Personality Assignment

There are definite emotional ties between consumers and products (Norman 2000). These emotional ties weigh heavily on the brands of products and are often influenced by consumer experiences. Travis (2000, p. 174) states that, “It’s possible for a product to get over the facts of its performance without giving you the feeling for it. But if a product communicates mechanically

without involving you emotionally, it will stay a product rather than becoming a brand." The emotions evoked by products are directly influenced by the individual personalities of their brands. Jennifer Aaker (1997, p. 347) states that brand personality "refers to the set of human characteristics associated with a brand." Aaker (1997) goes on to say "it is argued that the symbolic use of brands is possible because consumers often imbue brands with human personality traits." A product's 'personality' can be seen as the its experiential properties (Jordan 2000, p. 186).

Several studies exist regarding product personality assignment. Lenau and Boelskifte (2004, p. 6) tested "sensory and symbolic product attributes" using words in order to delineate product character and personality (p. 1). Additional studies (Jordan 1997) used specific words in order to assign personalities to products and concluded that there was evidence that individuals perceive the personalities of products in similar ways (Green & Jordan 2002). Studies regarding the assignment of personalities to products have been essential in the understanding of the 'experiential properties' of products and how these are associated with the 'formal properties' of products (Jordan 2000, p. 187).

Product Personality Assignment leads to a better understanding of the 'formal properties' of a product–otherwise referred to as its form, color, material, and texture. The ultimate goal of Product Personality Assignment within this study focused on developing a better understanding of the associations that generator users place on the formal properties of a particular generator brand in order to aid in the construction of its brand DNA.

The Brand DNA Metaphor

The popularity of genetic research has lead to the use of the DNA metaphor in the field of design. Out of the variety of metaphor for the relationship between products and brands emerges the "Brand DNA" metaphor (Upshaw 1997, Kapferer 1998, Marsden 2000, Gad 2001, Greenberg 2003). Thomas Gad, in 4-D Branding, writes of the "genetic programming that creates brands" which he refers to as "Brand Codes." Gad (2001) states that the "Brand Code" is equivalent to business DNA and by establishing it one can "futurize" a brand. Kapferer (1998, p. 53) states that "[a] brand is both the memory and the future of its products." Kapferer (1998, p. 53) goes on to state that the analogy of brand with genetic memory or codes is "central to understanding how brands function." Brand DNA can be defined as the words and perceptions of users contained in memory over time (Greenberg 2003, Marsden 2000). The brand DNA metaphor not only

references the user or consumer's involvement in the brand and product relationship, it also alludes to a dynamic evolving entity that lives and adapts to its environment.

3. PERSONALITY DRIVEN PRODUCT DEVELOPMENT

A sponsored research project offers a remarkable opportunity to explore product personality and brand DNA with a client who appreciates the value that research can bring to the product development process. In this case, the client was Sycamore Professional; a company that manufactures portable gasoline powered generators and was interested in exploring how research and design could evolve both their brand and product offerings. The team assembled to address this challenge included two faculty project leaders (one from industrial design the other from cognitive psychology), a PhD student as research manager, and a design team of four graduating industrial design students.

The objective for the project was to research generator users in the client's target market to better understand user expectations towards the brand and its brand's emphasis through the physical attributes of the product form. The ultimate goal of the project was to develop a generator design that fulfills user expectations in terms of usability, functional performance, styling, and most importantly brand appeal.

Within the guiding framework of product personality, we explored multiple methods to generate data that would inform the design process. While we were interested in identifying consumer response aimed directly at the existing product, we also wanted to better understand how respondents compared the Sycamore generator with the leaders in the generator market. The methods describe below illustrate various efforts to generate robust data that was eventually synthesized into an easily digestible format that could be integrated into the design process.

Concept Naming

The unique method of Concept Naming (Takamura 2005) was devised in order to study how consumers transcribe product attributes into their individual perceptions of the brand. Concept Naming is a derivation of what Jordan (2000) refers to as Product Personality Assignment in which respondents are asked to assign personalities to a specific product or set of products. The Concept Naming exercise asks respondents to assign personalities in the form of words, specifically adjectives, to particular areas or locations on a product rather than just the entire

product. This was done to facilitate the development of a product character vocabulary that could be used as a reference for respondent attitudes towards the physical attributes (formal properties) of a product, namely the product's form, color, material, texture, details, and the brand.

Participants recruited for this exercise included firefighters, art fair retailers, consumers at a major home improvement store, facilities and maintenance workers from a variety of industries, and construction crew leaders and workers. Participants were offered a cash incentive for their participation. In the Concept Naming exercise respondents received sticky note pads and pens and were asked to place adjectives or short descriptive statements on specific areas on the gasoline generator in order to give personalities to each part on the product (see figure 3.1). Where necessary, this process was facilitated by the investigators (i.e. to ensure that specific features were addressed or to clarify the meaning of chosen words). The words used by respondents were later extrapolated and used to construct the core product personality or brand DNA.

Figure 3.1 Concept Naming Personality Assignment Exercise

Personality Posters

The creation of unique visualization methods helped to better discern the emerging patterns within the collected data. Word lists and Concept Naming posters visually depicted the data resulting from the Concept Naming exercise (Takamura 2005). The graphic layout of these words into posters allowed for the matching up of words to physical locations on the product. Once several posters were completed and compared, they aided in the visualization of data patterns. Large master posters were also created in order to capture and compare all the data on a single page. The various sides of the generator (excluding the underside) were placed on separate sheets

along with all the words used in the study to give personalities to parts and areas on the product indicated by arrows (see figure 3.2).

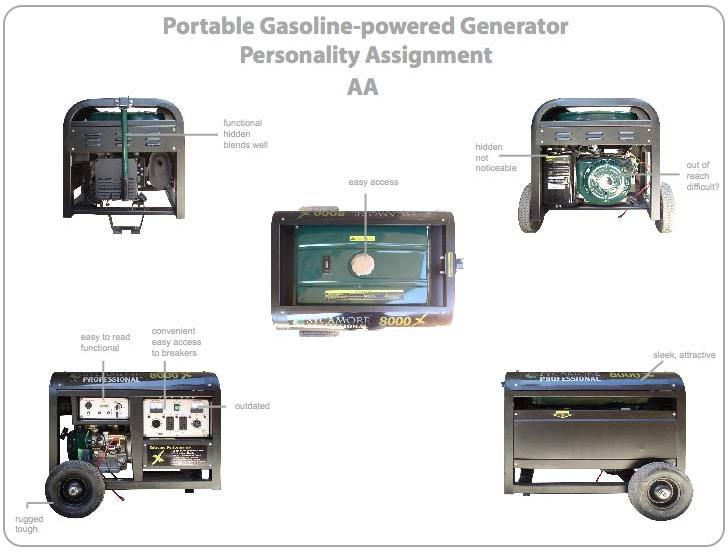


Figure 3.2 Concept Naming Personality Assignment Sheets (one participant)

Personality Rating Surveys

Two surveys (one descriptive and one prescriptive) explored the level of importance of eight personality attributes for generators, and how these attributes were ascribed to three images of specific generator models. The eight attributes under consideration were adapted from Aaker (1997) and include: honest/down-to-earth, exciting, daring/imaginative, up to date, competent, reliable, sophisticated, rugged/tough. The three generator models included a Sycamore generator model and two leading generator brands in America, Honda and Yamaha.

For the Descriptive Personality Rating Survey, participants were asked to rate three generators according to what extent they exhibit eight attributes on a scale from 1-7 (where 1 is ‘not at all’ and 7 is ‘very’). Participants were instructed to use the provided page (see figure 3.3 below) with generator images as a reference, and answer eight questions by placing an ‘X’ under the rating they felt best represented their opinion. Instructions requested that each model be rated for each question and indicated that it was possible mark the same rating for different models if desired.

Figure 3.3 Descriptive Personality Rating Survey Reference Image Page

An example of the question format can be found in table 3.1 below.

1. How honest/down to earth do the following generators seem?

	Not at all 1	2	3	4	5	6	Very 7
Honda							
Yamaha							
Sycamore							

Table 3.1 Descriptive Personality Rating Survey Sample Question

For the Prescriptive Personality Rating, which followed the Descriptive Personality Rating, participants were essentially asked to rank the magnitude of importance of the previously rated attributes. The questions were framed as follows: “How important is it that high-end gasoline powered generator seems (insert attribute here)?” This survey also utilized a scale from 1-7 where 1 indicated ‘not important’ and 7 indicated ‘very important’. These surveys were administered both in person and via email across the United States. We wanted to ensure that the targeted participants came from diverse contexts-of-use (i.e. from art fairs to fire stations and from the dessert-like southwest to high-risk weather locations like the Midwest, South, and Southeast). In the end we received 45 surveys from five different states.

We also sent a user satisfaction survey that requested feedback about use experience to a list of Sycamore generator owners. This survey concluded with the eight-question Prescriptive

Personality Rating. Of the one hundred email surveys sent out to Sycamore owners, seven surveys were returned (a response rate of 7%).

Contextual Use Observation

In order to understand the context of use of the generator, video-recorded and photographic observations and interviews were conducted at various locations identified as unique relevant contexts-of-use. The focus of the video and images was the geographic, physical, mechanical, and social context of the site and the area immediately surrounding the generator. Users were asked to describe the use of the generator, including storage, transportation, usage, interaction/interface, safety, reliability, and maintenance. Images from this activity were assembled into Context-of-Use posters. Video results of the interviews were then synthesized into a short film that explored the primary themes uncovered through analysis.

Figure 3.4 Context-of-Use Poster (for one participant)

These images were used to fuel brainstorming sessions with the design team where the primary concern was the understanding of usage and needs in diverse contexts.

4. RESULTS: DESCRIPTION, PRESCRIPTION AND USE

As described in section 4, the primary goal of the research endeavor was to better understand how respondents compared the Sycamore generator with the leaders in the generator market, and to identify consumer response to the existing product. This data was generated and analyzed

to identify the key opportunity spaces for design of a new generator that embodied a newly created brand experience.

Concept Naming & Personality Posters

The results of the Concept Naming and Personality Posters exercise were aggregated into one final image for each view (excluding underside) of the generator (see figure 4.1). These images offer a macro perspective of the generator personality. This activity was augmented by the additional data from the surveys. This preliminary analysis of raw data gave way to the equivalencing exercise described below in section 5. These posters also allowed us to define and address the common problem areas as identified by users.

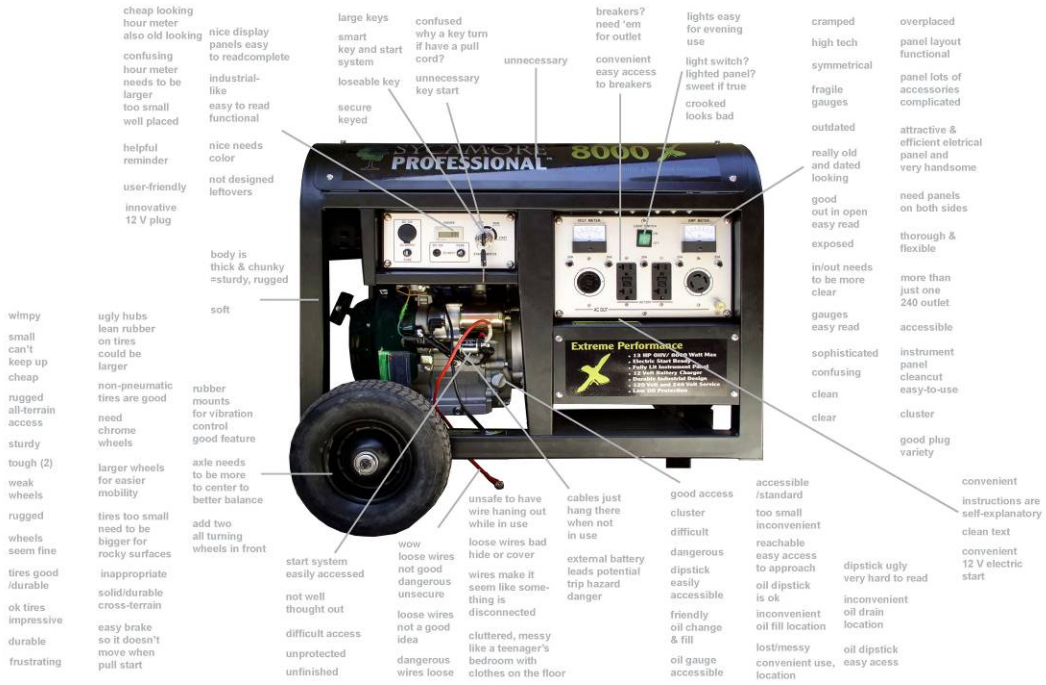


Figure 4.1 Aggregated Concept Naming Personality Poster for Side Open View

Personality Rating Surveys

The data from the Descriptive Personality Rating Survey (n=45) were analyzed according to mean scores for each of the models and for each question. As can be seen below (figure 4.2) this data provided a comparative analysis of consumer perceptions relating to personality attributes. As was expected, Honda fared extremely well and tended to outscore the other two models for each of the attributes. Sycamore, however, outscored Honda for the attributes of 'up to date'

(mean$_{Honda}$=5.09, mean$_{Sycamore}$=5.40) and ‘sophisticated’ (mean$_{Honda}$=4.76, mean$_{Sycamore}$=5.12). While these differences are relatively small they did offer insight into areas where Sycamore could capitalize on its competitive edge over the other generator brands.

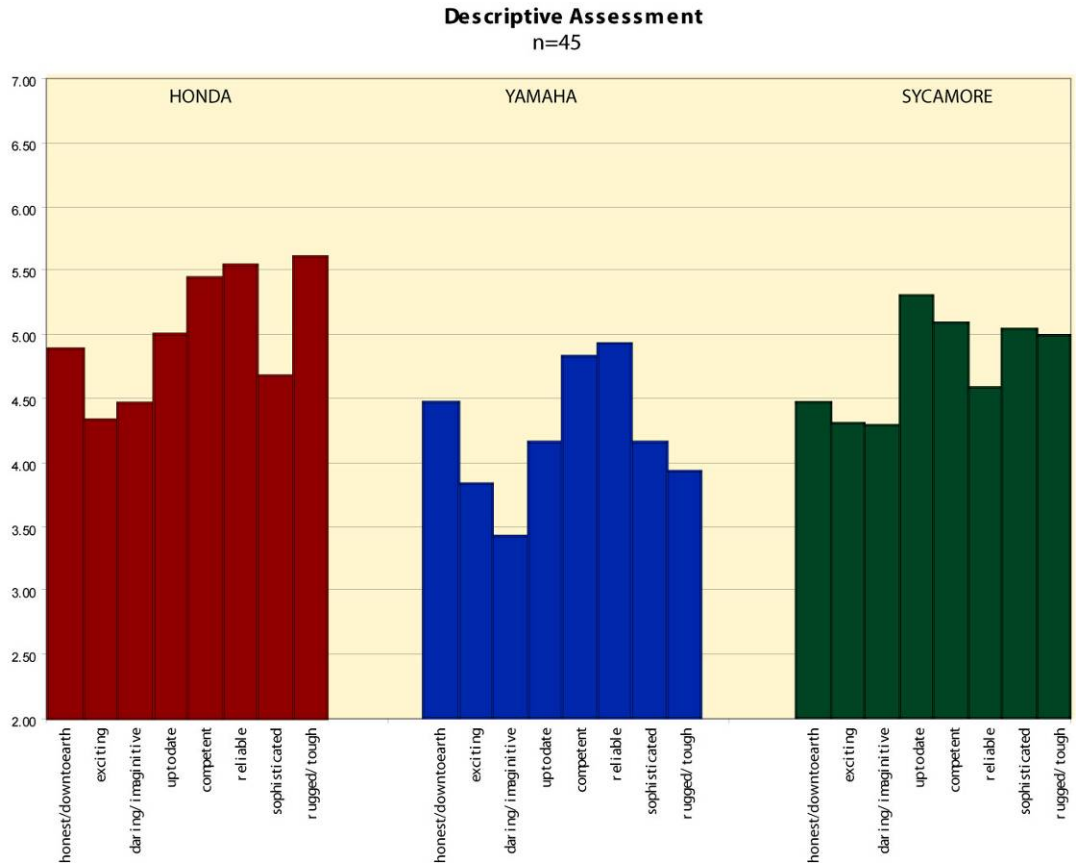
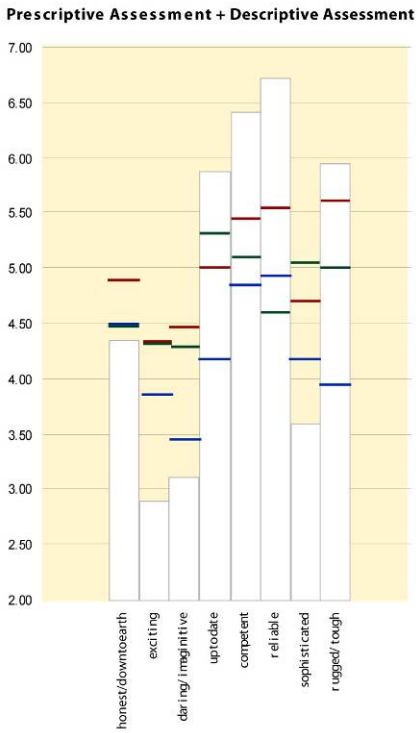


Figure 4.2 Results of the Descriptive Personality Rating Survey

The data from Prescriptive Personality Rating Survey puts the previous results into a value context. We had generated an understanding of how each of the models compared to the other two in terms of the attributes under consideration, but we needed to understand how (or even if) this mattered for the users. Using the example from the previous section we can see that Sycamore outscored the others as being more ‘up to date’. On a scale of 1 to 7, ‘up to date’ received a mean score of 5.8 , demonstrating that Sycamore had an existing competitive edge in this area, and that users find this an important characteristic of generators. On the other hand, Sycamore demonstrated an edge over the others in terms of ‘sophistication’; however users only gave this attribute a mean score of 3.6 demonstrating that the apparent advantage was actually relatively unimportant.

These results are illustrated in figure 4.3 where the white bars represent the mean scores of importance for each attribute and the colored lines represent the descriptive scores for each model (Honda=red, Yamaha=blue, and Sycamore= green). The top four attributes identified by respondents as most important included ‘up to date’ with a mean importance score of 5.90 ($mean_{Honda}$=5.09, $mean_{Yamaha}$=4.21, $mean_{Sycamore}$=5.40), ‘competent’ with a mean importance score of 6.44 ($mean_{Honda}$=5.53, $mean_{Yamaha}$=4.91, $mean_{Sycamore}$=5.16) ‘reliable’ with a mean importance score of 6.74 ($mean_{Honda}$=5.63, $mean_{Yamaha}$=5.00, $mean_{Sycamore}$=4.66) and ‘rugged/tough’ with a mean importance score of 5.98($mean_{Honda}$=5.71, $mean_{Yamaha}$=3.98, $mean_{Sycamore}$=5.07). These results were then compared to the attributes that were freely generated by respondents in the Concept Naming exercise to identify where the Sycamore brand and product already embodied desirable characteristics and where there was a need to explicitly incorporate them into the design.



Contextual Use Observation

As previously described, the data from the context-of-use interviews were illustrated in posters for individual users and incorporated into a short movie. The primary themes uncovered during analysis of this data included: instructions, gassing up, checking and changing oil, transporting, starting up, electrical, and form factors. These themes were then used as the catalyst for a

divergent brainstorming exercise that explored the context-of-generator-use in terms of users, activities, artifacts, and atmosphere. Multiple ideation sessions that included project managers, the research manager and designers explored both formal and experiential properties of the Scyamore brand and the generator design. During the convergent phase of these exercises, we collectively reduced the number of possible solutions utilizing the brand DNA molecule as criteria.

5. BRAND DNA TO FUEL REDESIGN

The analysis of the Concept Naming personality assignment data led to the construct of word clusters formed by word equivalencing (see diagram 5.1). The number of words within each cluster determined their relative size. Twenty five (25) words relating to ‘rugged’ comprised the largest of the clusters followed by nineteen (19) words relating to ‘accessible,’ nineteen (19) words relating to ‘easy,’ eight (8) words relating to ‘convenient,’ and five (5) words relating to ‘friendly.’

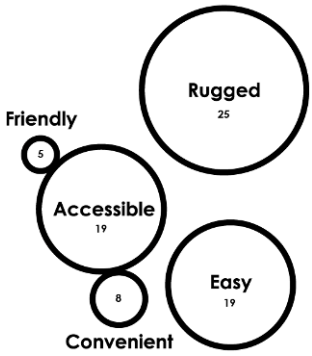


Figure 5.1 Concept Naming Personality Assignment Word Clusters

In order to allow the design team to better visualize these word clusters a three-dimensional brand DNA molecule was constructed based on the word cluster diagram (see figure 5.2). The three-dimensional quality of the brand DNA molecule helped to depict the relative weight and importance to each cluster to one another. The brand DNA molecule construct also helped to depict the relative influence or ‘molecular attraction’ between each cluster.

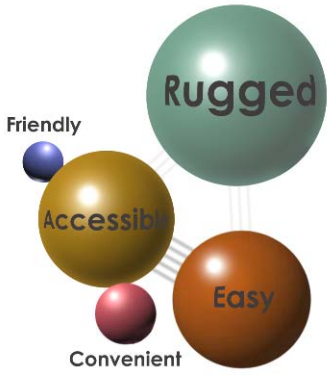


Figure 5.2 Concept Naming Personality Assignment Word Clusters

The design team then used the brand DNA molecule as the basis to fuel their design concepts for the generator redesign. It was understood by the design team that all aesthetic and functional concepts for the redesign had to fit the DNA molecule. In other words all redesign concepts had to have the same proportion of 'rugged' to 'accessible' to 'easy' to 'convenient' to 'friendly' quality as described by the brand DNA molecule. An example of such a design concept solution is illustrated in figure 5.3.

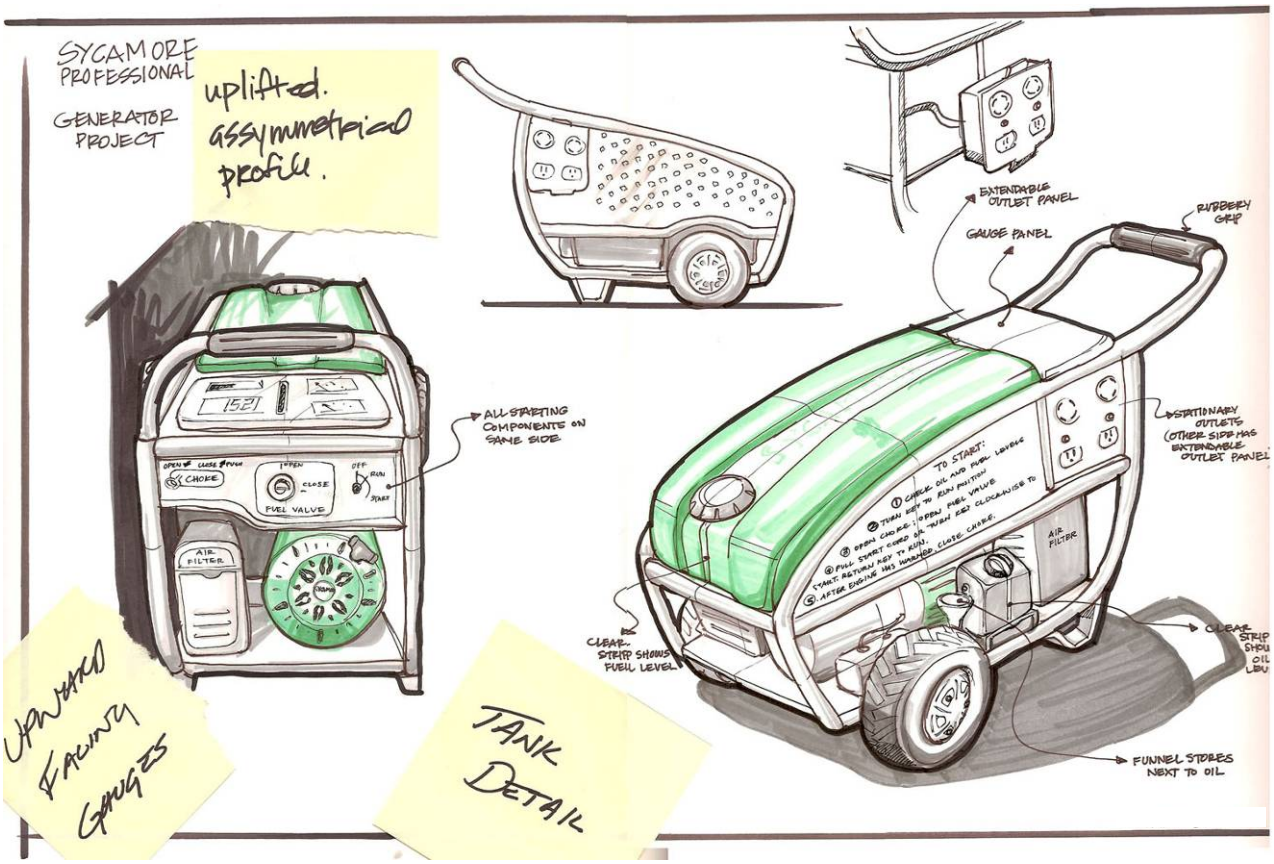


Figure 5.3 Sample generator sketch from preliminary design phase

6. AVENUES FOR FUTURE RESEARCH

At the conclusion of this project we have identified three primary areas that merit further investigation: methodology, design research and design process, and industry/academia partnerships. The preliminary steps taken to refine this methodology in the context of the described project offer multiple opportunities for its application to other projects in product and brand development.

Methodology: Personality Driven Product Development

We believe there are many opportunities to develop the methodology described herein. The methods utilized in this study have been explored in the context of generator use and music and information technology products (Takamura 2005). Given the context-specific nature of these data generation and analysis tools, there is potential for the personality driven approach to be applied to other products. Furthermore, the use of visual data to fuel the research process seems particularly noteworthy for research in design, an arena that depends heavily on visual information. As product development continues to emphasize the value of brand experience as communicated through product design and use, the brand DNA metaphor offers enlightening avenues of exploration of how to inject brand essence into both formal and experiential product properties.

Design Research and Design Process

As most design researchers would (hopefully) agree there exist a number of methods and methodologies that can be borrowed from the social sciences and other disciplines of inquiry and adapted for use in design research. Though we may struggle to identify and defend the choice and implementation of research techniques, there is great promise in the potential of designing methods specifically for product development research that utilize appropriate techniques from other fields. The methods used for this study are a case in point and demonstrate the influence of design research on the design process and the potential to use design process for the development of research methods that explore brands and products.

Industry/Academia Collaboration

Finally, we believe this study demonstrates an emerging trend in how to design and implement collaboration between universities and industry sponsors. The case presented here describes how an academic unit can incentivize industry partnership through development of client-specific design research, brand, and product development offerings. As design educators seek to minimize the gap between education and practice, the methodology described herein provides a successful example of how to customize academic offerings to best serve industry needs in pursuit of truly innovative partnerships that grow the knowledge base both of academic units and students, as well as the clients they hope to serve.

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