NeuroDesign™: A Primer for Businesses seeking Innovation through Design

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The following is the first in a series of exploratory white papers. Subsequent installments will examine specific aspects of the theory and practice of NeuroDesign™.

It's official! What marketers have claimed for years — that emotional drivers, not rational appeal, account for brand loyalty and economic growth — has received support from no less than the frontiers of neuroscience.

In fact, the most compelling refrain from brain science is that even nominally rational aspects of our lives are *saturated* with emotion.

Think about it — can you honestly describe your decision to buy your car or home as purely rational? Of course not! And these are the *largest* purchases for most consumers.

Then think about a jar of mustard. Think of it in the context of a shopping list. A squeaky shopping cart, limited time, children, a buzzing cell phone and eighteen choices for mustard. Honey mustard. German mustard. Deli select mustard. Country Dijon mustard. Hot mustard. Wasabi mustard. Truffle-infused mustard. An on and on and on...

The sheer barrage of 30,000 *other* SKUs in the average supermarket precludes dedicated, analytical reflection. How can one conduct a strictly *rational* cost-benefit analysis of mustard. Of eggs, of lettuce or of toilet paper?

In fact the act of deciding whether or not to make a purchase lasts no longer than 2.5 seconds — at shelf! What's more, consumers can't tell you why!

That's right. And when consumer preferences from carefully screened focus groups are brought to market, over ninety percent fail. That is not a misprint.

How can this be? It is because the emotional component that accounts for consumer behavior exists BELOW the level of conscious articulation. Most people simply cannot access their own emotions.

If funerals and weddings, life-changing events that crackle with emotional energy, are notoriously difficult to discuss and integrate, how much more remote then are the emotions involved in selecting a toothbrush!

But pause for a moment. Toothbrushes, as commonplace and banal as they are, remain among the very few things we routinely purchase that puncture the surface of our body. And things that touch our skin, and even reach into our bodies, carry emotional charges. Marketers are coming to understand that every conceivable consumer product, from garbage bags to bug spray, carries emotional freight and involves a tacit, electric link to our lives.

Does it come as a surprise that we tend to buy things that we identify with, aspire to — as opposed to something we like better or that might be better for us? I don't think so.

What may come as a surprise is that neuromarketers — marketers who use new, non-invasive medical imaging technologies to study the biological coordinates of purchase decisions and consumer preference — are expected to capture fully ten percent of all money spent on marketing in the coming years.

Of course, the solutions offered by neuromarketing — a better grasp of consumers' emotional world, and the emotional drivers behind specific categories and products — also presents a new crop of problems.

The foremost of which is: how are these findings to be translated visually and rendered actionable?

The firms that act early to stake out and own the visual language of specific emotional charges will achieve a significant and sustainable competitive advantage over those firms who refuse to explore this territory.

This is the simple truth inside all the fancy neuroscience: packages and products that reflect and honor our emotional worlds stand out and flash at us like mirrors, and therefore grab our attention. We respond to, react to, desire and pursue

And what could be more valuable in today's media- and channel-choked marketplace than a reliable, neuroscientifically-based guide to visual messaging?

This is the premise and pretext for laga's proprietary design research and management tool, NeuroDesign.™

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NeuroDesign™ is a strategically informed **method** for guiding the design process from upstream conceptualization through prototyping that provides a robust, scientifically validated platform that enables managers and designers to speak the same language as they pursue a common goal: *design that drives profits up*.

The central premise derives from the insight that emotion drives purchasing decisions. Since the time of Adam Smith, microeconomic theory has been relatively unified on the reality of unconsciously motivated economic action. With the Austrian School, this insight came to explain larger problems, from the trade cycle to "irrational" behavior of tax avoidance. Now with the emerging discipline of

neuroeconomics in the offing, there is an fresh light being cast on the biological processes by which individuals make choices and decision in the marketplace.

It follows form this premise that commercial imagery (brand, package and identity design) that elicits strong emotion will outperform purely "functional" imagery. In short, emotionally resonant design positively impacts sales, and thus profits.

NeuroDesign offers a systematic process for: (1) leveraging already identified emotional drivers of a given brand or product, (2) constructing a coherent map of neuroscientifically determined visual analogs for these drivers, and (3) applying them to existing visual and perceptual equities in order to produce a carefully graded array of emotionally powerful visual communication options.

This strategic component will enable firms to enhance existing equities to sharpen and magnify the emotional component of their messages. It also will help firms differentiate their offerings in more emotionally resonant and pointed terms from competitors, staking out the shelf-set with more confidence and offering the ability to adjust nimbly to new competitive offerings by staying "on message."

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The NeuroDesign™ method is grounded in three separate but mutually illuminating disciplines that, when carefully woven together, present a coherent and uniform **theory** enabling designers and managers to confidently make effective decisions in a notoriously slippery environment.

Both managers and creatives have long mined these disciplines in an *ad hoc* fashion, but there has been, to date, no effective way to yoke them together in a meaningful process that enables clarified strategic decisions about design. Isolated, flickering insights have, for the most part, remained in an odd suspension because they have lacked an overall framework for systematically integrating pertinent and state-of-the-art research on topics of immediate economic value.

NeuroDesign™ provides a carefully mortised, interlocking cross section of the most advanced thinking in the natural sciences, the social sciences and the humanities on the subject of visual communication.

The first discipline, *neuroscience*, has experienced an explosion in scope, range and utility since 1990. It has been said that more has been written about the brain in the last fifteen years than the combined total of the preceding twenty centuries!

One core insight from the current vantage point presented by neuroscience is that emotion plays a far more significant role in our lives than we have previously thought. Fully 95% of our brain's operations occur below the level of conscious thought. Combined with the fact that this compact organ, which accounts for about 2% of our body mass, consumes fully 30% of our calories, then we can come to grasp the magnitude of the emotional dimension of life.

Thanks to the enormous advances in non-invasive imaging technologies over the last decade, neuroscience opens a window on the processes of mind at work when we are

exposed to specific phenomena, how we react to them and the decisions made as a consequence. Particularly interesting are the gaps between what these technologies show as happening, and what we say about it. Literally, we are unable to speak — or sometimes acknowledge — the truth about our emotional lives.

Neuroscience, then, gives us an understanding of how we work from "inside" the box, so to speak. To understand how those forces work on the "outside," we must rely on the second discipline, *psychology*.

A current school of psychological thought, descending from Darwin, has developed a systematic "vocabulary" for describing and explaining emotional phenomena. Derived in large part from the vibrant insights of Silvan Tomkins (1911-1991), today's cohort of emotion-based psychologists are led by Paul Ekman of the University of California, San Franciso.

The central point of this body of work has been an analytical tool for parsing the expression of emotions on the human face as well as to locate and identify so-called universal emotions. Universal emotions are inner experiences we *all* have — whether we are children from sub-Saharan Africa or Canadian retirees — and we can recognize the visual cues of that experience because they are fixed in coordinated muscular actions activated by affect programs in our limbic system, the site in the mid-brain where most emotion in processed.

Because we can identify and isolate the specific visual signs of emotion, expressed on the face by patterns of muscular movement, and because research has shown how we recreate emotions within us based on the emotional expressions we encounter (a process called emotional contagion), we can now account for the creation of emotional experience.

Which takes us to the third discipline that helps coordinate and shape the findings of neuroscience and psychology — *iconology*. This is certainly the least well-known of the triad, but it offers the material from which one can build a bridge from the heady world of brain scans and laboratory analytics to design proper.

Iconology, properly speaking, is a method of visual analysis that was developed about a century ago by Aby Warburg (1866-1929), scion of the Hamburg banking family and one of the founders of modern art history. It seeks to account for the spontaneous appearance — in widely disparate times, cultures and locations — of specific visual formulas that convey emotion. A deep dive into visual communication, iconology enables one to capture and assess the form and content of visual expression in any medium. With one foot in art historical research, iconological analysis offers the most robust form of content analysis available — a kind of semiotics on steroids, unhooked from the strictures of the linguistic model.

Taken together, neuroscience, psychology and iconology constitute the intellectual foundation for NeuroDesign™.

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Some of this material is already being explored, though in a somewhat halting and haphazard manner. The automobile industry, for example, has been an early adopter of the commercial insights provided by neuroscience. Prof. Henrik Walter of Frankfurt University, conducted a number of scans for Daimler-Chrysler and provided guidance for specific design criteria that could elicit strong emotional responses in car buyers. Dr. Clotaire Rapaille of Archetype Discoveries Worldwide, has taken similar credit for impacting the design of the PT Cruiser as well as a number of SUVs.

In contrast to these developments, laga's NeuroDesign™ presents a four-part method for leveraging existing proprietary and secondary consumer insight/motivational research for the purposes of positing a visual "sweet spot" for a given product or brand within a category.

With the sweet spot thus established, strategic "stretch work" can be undertaken that dials in the known visual cues for emotionally resonant communication.

Here's how the process works:

STAGE ONE. The first step is to perform an audit of existing proprietary qualitative, motivational or consumer insight research, research whose task is to isolate, describe and explore the emotional drivers behind the product, brand or category in question.

The audit will result in two independent documents: (1) an executive summary of the existing research, contrasted to current secondary literature on the subject, and (2) the execution of an Emotional Script.

The summary will discuss the material "input" for the project, assess its value and, if necessary, make suggestions for custom or spot research to fill potential gaps.

The Emotional Script is a distillation of the consumer's emotional engagement with the product, brand or category. It is a series of propositions that map, in terms of the universal emotions discussed above, the general assembly and flow of consumers' emotions when encountering the item in question. Emotional scripts describe a syndrome or pattern of emotional "need/desire states" and how they are resolved.

STAGE TWO. The second stage is to construct a visual encyclopedia of the constituent elements of the Emotional Script.

This visual encyclopedia is called an Emotional Analog Map, and is a large board that presents the known, scientifically validated visual analogs of the emotions identified in the script. The board is annotated with a legend explaining the imagery and the rationale for its selection.

The Emotional Analog Map is broken into three sections: (1) Expression, (2) Empathy and (3) Archetype.

The first section is composed of **facial imagery** that clearly and unambiguously documents the visual references and cues of emotional experience. Each facial image is further broken down by visually isolating the specific facial action units, or muscle groups, that produce the expression in question. Taken as a set, these images constitute the body of known two-

dimensional signifiers of the emotion(s) at hand. As such, they will inform graphic and other 2-D design tasks.

The second section is composed of **gesture and posture images** that are associated with the emotional engagement in question. These range from obvious hand signals to more subtle body configurations that have direct application to three-dimensional, or structural, design concerns.

The third section is composed of **archetypal imagery**. Archetypes — collective images that are fused with a strong, clear emotional charge — have recently come into their own as a vehicle for productive brand and package design through the work of Zaltman, Rapaille, Holt, Clark, Wertimer, Mark and Pearson. Thanks to input from three generations of iconological scholarship, identification of these themes and the heritage of universal imagery behind them, may now be placed in the designer's toolbox for application.

STAGE THREE. The final stage is the application of these cues to the design problem at hand. The objective is to probe the full range of potential emotional expression in order to compliment, enhance or restage existing functionally driven design. By offering a gradient from literal to abstract features, designs can be tested in any number of ways for emotional resonance, and adjusted accordingly to preserve, increase or otherwise modulate the desired emotional charge of the resulting imagery.

The strategic value of "owning" the visual language of emotional communication in one's category or shelf-set is *incalculable*. It will allow for generations of well-informed strategic design decisions, from managers and creatives alike.

General Reading

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