

An Initial Study into the Impact of High-Visibility Enhancements on Shelf Presence

A 2013 Study
Commissioned
by the Foil & Specialty
Effects Association

Thousands of successful product launches, introductory offers, changes in market position and responses to offers can be associated with the use of a high-visibility enhancement. Validation of physical and emotional responses to these enhancements would offer strategies as a tool to support the decision to incorporate high-visibility enhancement within the brand development plan.

Introduction to High-Visibility Enhancements

There are many processes that can be applied to printed pieces to stimulate attraction and hold the attention of a viewer. Some of these processes have long been in existence and are a part of the branding strategy for many companies in a wide variety of product marketing categories, including food and beverage, cosmetics and grocery. Today, processes that increase visibility, stimulate attraction, hold attention, and convey an image of value are known as High-Visibility Enhancements. The list of high-visibility enhancements includes several processes and many references. These processes include embossing, specialty UV coatings and metallic finishes.

The most established and well-known high-visibility enhancement is foil stamping. For many years referred to as hot foil stamping, indicative of the temperature necessary to effect the process, foil stamping has in recent years been joined by cold foil transfer. This is a progression of technology within the foil stamping industry to expand the use of the foil stamping process to machines that do not require heat or temperature to effect the process.

Historical Perceptions and Typical Uses

The use of foil stamping dates back many years to just before the year 1900. Commercial viability was established throughout the world just after World War I. Products and printed items enhanced with gold or silver stamping were luxury items, such as perfumes, liquor, tobacco and the finest chocolates. Other items enhanced with foil stamping were books and binders that carried literature that spanned centuries of readers, and business stationery of the finest companies, doctors, lawyers and educated professionals. The application of a gold or silver foil stamping elevated perceived value, perceived quality and the prestige of the individuals that used it.

Desire to Expand Applications

Over decades of meeting customer demands and investing in development of stamping foil products, the types of finishes and applications have expanded. Today, stamping foils are available in over 100 shades of metallic finishes, dozens of decorative printed finishes, and – in the last three decades – optically variable finishes.

All the development and growth to enhance visibility and functional use of the foil stamping process has expanded applications. Once thought to be applicable for only luxury items, stamping foil applications now can be identified in many different markets. Publications, grocery items, pharmaceutical products, clothing, social stationery, gaming cards and promotional displays are now commonplace applications for stamping foil applications. Holographic foils have come into favor as a method of adding a level of product security to product packaging.

In addition to adding to the perception of quality and providing security, foil also attracts attention. This is particularly critical when attempting to differentiate a product on a crowded supermarket shelf. An article from PRS Research stated: “Across hundreds of studies, perhaps the single most consistent (and intuitive) finding has been that shoppers do not consider product categories fully and systematically. In fact, we've found that most shoppers only actively view about 50 percent of the brands within a category. The remaining 50 percent of the brands never get a chance to sell, because they are never seen (“unseen is unsold”). We've also found that there is very high correlation between how quickly a brand is seen/considered and its likelihood of purchase.” ¹

The Foil & Specialty Effects Association estimates that high-visibility enhancements are found on less than 10 percent of printed items. What impact do those enhancements have on shelf presence? Process providers, industry suppliers and the Foil & Specialty Effects Association (a trade association) are driven and focused on increasing the contribution to printed items of high-visibility enhancements. With that focus comes the responsibility for education and research.

Need to Understand Impact

- **Prevailing Experiences (Case Histories)**

Throughout the decade of the 1990s and first decade of the 21st century, there have been a number of non-typical uses for high-visibility enhancements. A high percentage of the applied uses were driven by competitive interests, such as the desire to change rank or status in a market category. Other reasons for using high-visibility enhancements include establishing a new brand, attracting additional distribution

channels and supporting price repositioning. Strategists found that the inclusion of high-visibility enhancements was directly related to achievement of their stated objectives.

Strategists are reluctant to share information on the drives for success. Therefore, companies and individuals must research applications themselves to identify the common elements of a strategy that contributed to success.

Specific to the use of stamping foils, in the two most recent decades, a number of experiences can be cited. In each case listed below, a significant development within the product category was launched with a strong promotional strategy. The choices made by brand strategists in each of these examples established record-breaking results for the brand owners and created a new standard in shelf presence within the respective category.

- Colgate® Total® Toothpaste Launch ²
 - Product introduced in the United States with holographic foil stamped packaging in early December 1997 with a \$100 million marketing campaign
 - Becomes the #1 toothpaste brand in USA within four months with a 30 percent market share
 - Altered the standard of packaging in the oral care category
- Gillette® MACH3® Razor Launch ³
 - Product introduced with overprinted/foil stamped graphics in 1998
 - Becomes the #1 selling razor in the USA and Europe within six months despite a premium price tag that many critics believed was too high
 - Altered the standard of packaging in the razor/shaving products category
- Zantac® Antacid ⁴
 - Product introduced with embossed metallic foil stamping in 1983
 - Establishes premium price level for OTC antacid product

- Becomes the largest selling pharmaceutical drug in the world by 1986, despite the competition's status as the Nobel Prize winner in medicine a decade earlier
- Altered the standard of packaging for OTC products
- Best Choice® Private Label Products ⁵
 - Added gold foil stamping to its olive oil brand
 - Retailers who stocked the new package experienced a 30-percent jump in velocity for the brand and retention of 10-15 percent thereafter. Over time, other products received packaging makeovers featuring foil stamping.
 - Sales for parent company Associated Wholesale Grocers, Inc. from 2004 to 2008 increased by nearly 50 percent.
 - A 2006 survey commissioned by the Private Label Manufacturers Association reported that 57 percent of respondents said packaging for private label brands is just as good as the packaging for national brands.
 - Best Choice® products are the test subjects in the study described within this white paper.

▪ The Commissioning of Studies for Validation

Members for the foil stamping industry have known from personal experience with clients the impact that a high-visibility enhancement can have on consumers and viewers of printed items. Thousands of successful product launches, introductory offers, changes in market position and responses to offers can be associated with the use of a high-visibility enhancement. Oftentimes, the results are dismissed as applicable only to or specific to a single offer or product type. Countless number of times, strategists have been known to dismiss the use of high-visibility enhancements for a list of subjective reasons. The FSEA recognized that more OBJECTIVE reasoning was needed. Scientific assessment, data and evaluation would be most useful in bringing more objectivity to the decision-making process. Validation of physical and emotional responses to high-visibility enhancements would offer strategists a tool to support the decision to incorporate high-visibility enhancement within the brand development plan. As technology allows the capture of increasing levels of human response to

stimulation, the accumulation of scientific data to validate high-visibility enhancements becomes possible.

A Study of Validation – The Consumer Behavior Lab

▪ Study Overview

The Sonoco Institute of Packaging Design and Graphics at Clemson University, in partnership with R. Andrew Hurley's research program, conducted an eye-tracking study in the CUshop Consumer Behavior Lab. The study was developed in conjunction with the Foil & Specialty Effects Association to observe the effects of foil stamping on consumer interaction and test the hypothesis that a package embellished with foil would increase attention to the product when compared to the same product without foil. Three separate packaged product categories were tested over the three-day period.

The Sonoco Institute was created to exploit the synergies that exist between the graphic communications and packaging science departments at Clemson University. It is the only university program in the country with this one-of-a-kind multidisciplinary approach to packaging as a core competency. R. Andrew Hurley is the uber-designer of the Sonoco Institute, has a M.S. in Packaging Science and is working towards a Ph.D. in Rhetorics, Communication and Information Design from Clemson University. Hurley has over seven years of various packaging-related work experience, on-going consulting work, prior full-time employment with three Fortune 500 companies, consulting initiatives with 20+ southeastern facilities and relationships with 50+ retail and vendor outlets.

▪ Study Procedure

The approximately 265 participants were offered no incentives and participated in the study over three days. Demographic information was collected after the participant completed the study. Participants were asked to wear Tobii Glasses, which track pupil movements at 30 fps (frames per second) and record the viewed scene with a forward-facing camera. Each participant was first calibrated with the glasses, then escorted into the CUshop to shop as normal. Next, the participant was handed a shopping list with a randomized listing of products. Only a few products were

relevant to this particular study. The participant was instructed to shop as they normally would and, when ready to make a selection, to write down the product code (between 2 and 3 digits) onto the space provided on the shopping list. When complete, the participant exited the shop and filled out a survey on a computer.

Different products were tested each day of the exposition; thus, demographic reporting varies day-by-day. Specific products tested over three days included a ground beef complement product (Easy Skillet), a raisin bran cereal and an individually-packaged microwave popcorn. Each participant did not participate in every study, so no one person ran through more than one day of testing.

▪ Study Data

Eye-tracking data was collected throughout the study and to aggregate data, IR markers were utilized to track the position of fixations on the shelf. The shelf was digitally organized in terms of “Areas of Interest” (AOIs) and “Areas of Analysis” (AOAs). An AOA is useful for observing a generalizable area, such as “popcorn,” where all of the popcorn is defined as a large group. From an eye-tracking perspective, AOAs allow researchers to understand the total amount of time spent looking at popcorn or how long it takes participants to view the general area of popcorn. AOIs help researchers understand the influence of specific packages within a defined AOA. In the example of popcorn, an AOI could be “Best Choice[®] brand 94% reduced fat,” which pertains to that specific package.

▪ Study Definitions ⁶

AOI (Areas of Interest): A planogram, or product layout, was designed for the grocery stores shelves and specific products were determined as the focus of observation. These were the packages (both stimuli and control) developed for the study and defined in the software for analysis.

AOA (Areas of Analysis): Within the area of interest, the AOA is the product category, such as “cereal” and “popcorn” that was used to determine how long it took to find the package once a customer entered into the product category

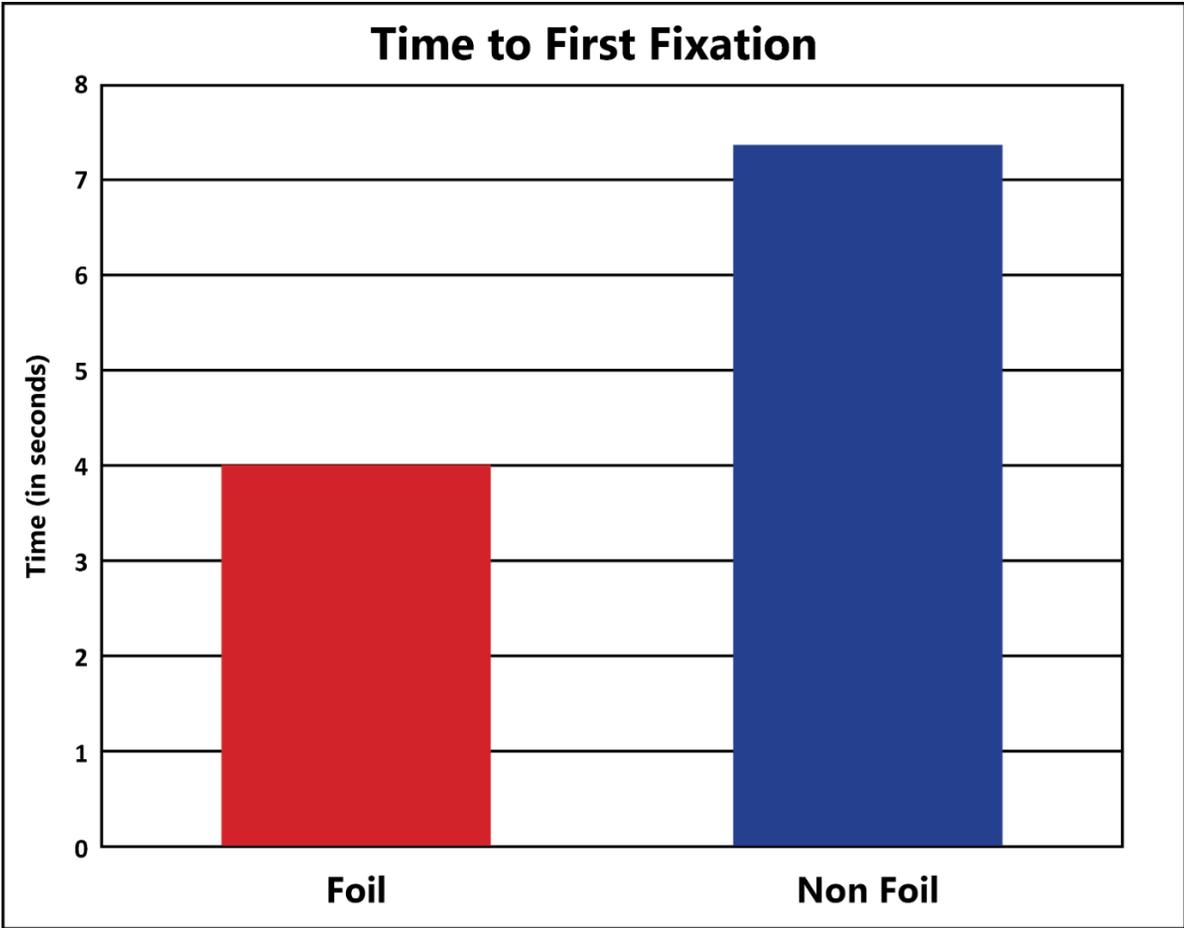
Time to First Fixation: The time it takes for a participant to find the package of interest once entered into the product category

Fixation Duration: The length of the fixations in seconds within an AOI

Results

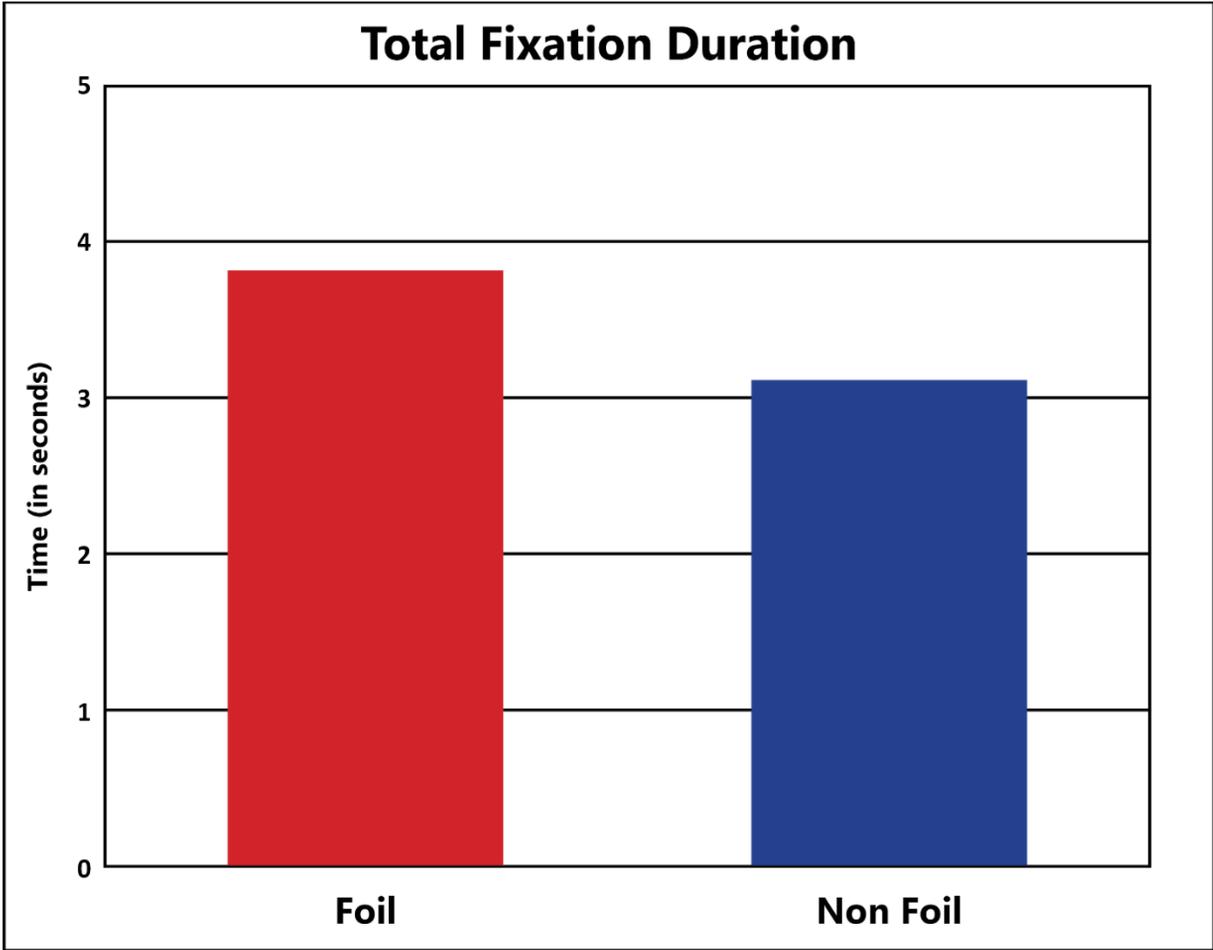
Results are presented as graphs with a brief descriptor underneath each graph. These results are the interpretation of the FSEA, drawing from the data collected from the initial study conducted by Clemson University and the CUshop.

Time to First Fixation (Mean)



The graph above demonstrates the overwhelming results for “First Fixation” of foil stamped packaging for all of the different types of packaging analyzed during this pilot study. The ability of a product to attract the shopper’s visual attention has a strong influence on a consumer’s decision to purchase, according to Tobii, the manufacturer of the tracking eye glasses.⁷ Time to first fixation was significantly greater than the control for two of the three packages tested. This is a remarkable difference, especially based on the results being measured in seconds. In addition, the extremely low standard error demonstrates the significant consistency of the results from one participant to the next.

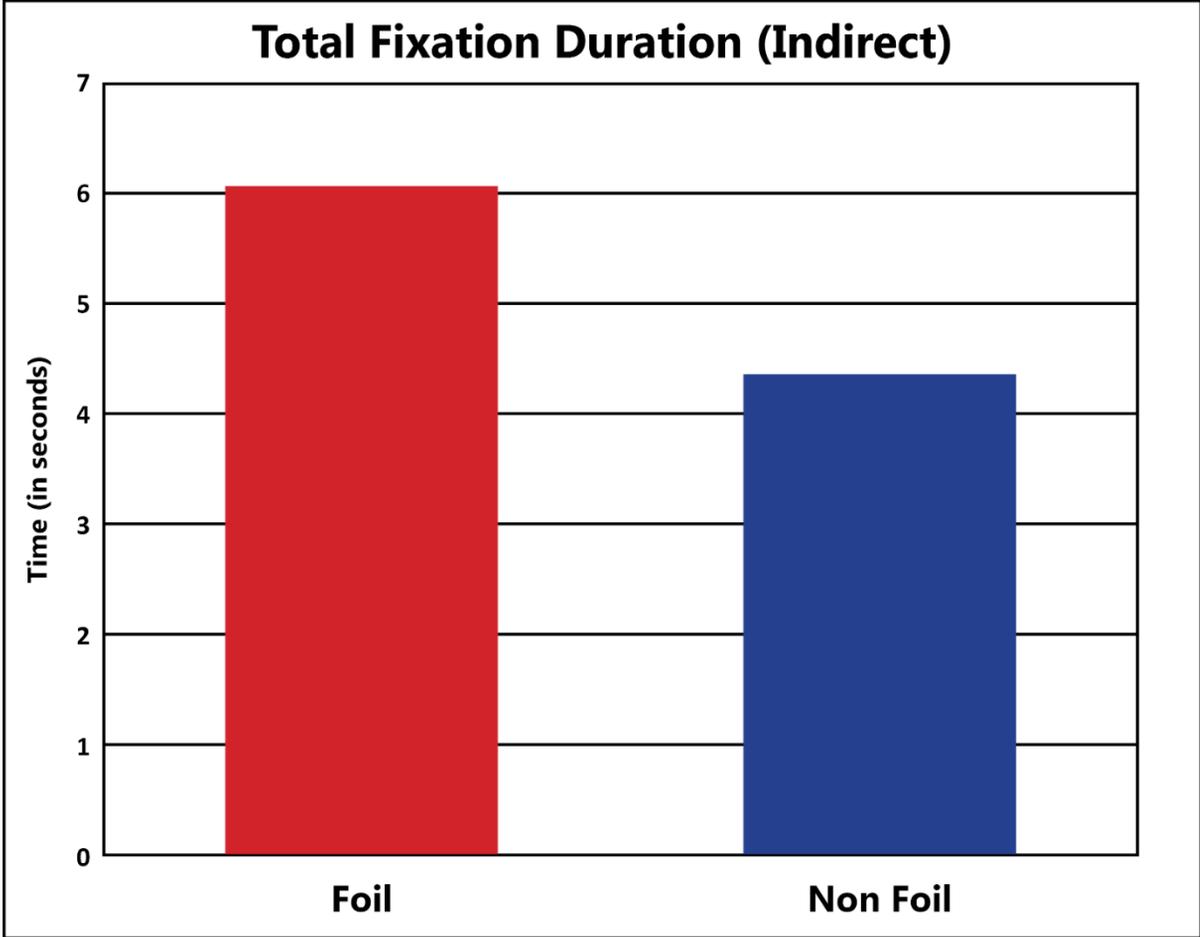
Total Fixation Duration (Mean)



With analyzing and comparing the total fixation duration of all of the foil stamped packaging and non-foil stamped packaging, the study demonstrated that participants had a significant longer total fixation duration on the foil stamped packaging. As with the "Time to First Fixation" results, the standard error for those who chose foil stamped packaging was very low, which demonstrate the significant consistency of the results from one participant to the next.

Indirect Results

Total Fixation Duration (Mean)



In addition to the results relating to products that participants were asked to find, a portion of the three-day study included participants' reaction to foil stamped versus non-foil stamped packaging without direction. Results show that there was also a significantly higher total fixation duration for foil stamped packaging versus non-foil stamped packaging when combining the results of all three packaged products analyzed.

Executive Summary

It is the conclusion of the research team that this was a very thorough and effective pilot study. There are clear advantages to foil stamping on packaging, in terms of attracting attention faster and retaining attention on packaging longer than identical packages without foil stamping. Through these tests, it is also the hypothesis of the research team that foil stamping increases sales, but this will need to be quantified through a study specific to tracking sales.

Overall, this pilot experiment clearly indicates that foil stamping on packaging provides real benefits concerning consumer attention on packaging. Additional studies are recommended to confirm these results and explore other potential benefits of visual enhancement techniques on packaging.

- 1 Scott Young, Perception Research Services, “Breaking Through the Clutter: Research Insights to Improve Point-of-Sale Marketing,” *Package Design Magazine*, July/August 2005
- 2 Colgate/Crest Brand Profiles, AdBrands.net, http://www.adbrands.net/us/crest_us.htm
- 3 “MACH 3: Anatomy of Gillette’s Latest Global Launch”, *strategy + business*, Second Quarter 1999, Issue 15
- 4 Timothy F. Bresnahan and Robert J. Gordon, editors; “The Economics of New Goods”; University of Chicago Press; January 1996; Chapter Title: The Roles of Marketing, Product Quality, and Price Competition in the Growth and Composition of the U.S. Antiulcer Drug Industry
“Standing Out in Crowded Markets”, International Institute for Business Development (IIBD) Strategy Newsletter, Volume 1, Letter 5, October 2001
- 5 “Holographic Foil and Other Enhancements Lend Sales Boost to AWG Private-Label Packages”, *InsideFinishing*, November/December 2011
“Associated Wholesale Grocers Expanding Its Reach”, *Supermarket News*, August 3, 2009
Trends and Opportunities in Packaging R&D in the US, Niels Hauffe, NVW Market Discovery, Inc., Technology Review, 2007
- 6 Eye Tracking as a Tool in Package and Shelf Testing, Tobii Technology AB, November 2008
Definitions also provided by Dr. R. Andrew Hurley, Sonoco Institute of Packaging Design and Graphics at Clemson University
- 7 Eye Tracking as a Tool in Package and Shelf Testing, Tobii Technology AB, November 2008

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