# Evaluation Report: Effectiveness of Walmart's "Made in the U.S.A." Product Labels

16 June 2015

Jeff Johnson, Ph.D. UI Wizards, Inc.

### **Introduction**

Truth in Advertising asked me to perform an expert review of the labels that Walmart displays on its e-commerce website (Walmart.com) to mark products as made or assembled in the U.S.A. The presumed purpose of the labels is to allow Walmart customers to determine which products are U.S. made (including the degree to which they are U.S. made) and which are not.

The purpose of my review was to evaluate the clarity of Walmart's "Made in the USA" labels, i.e., how *effective* they are in fulfilling their presumed purpose.

Screen-images used as examples in this report were captured between March 23 and June 15, 2015.

### **Method**

To perform my review, I looked at several product search results pages and individual product pages at Walmart.com. Some pages were provided to me by Truth in Advertising, but most were encountered by browsing Walmart.com on my own.

The over-arching principles that determine the clarity – and therefore effectiveness – of product labeling, and the criteria by which I evaluated the effectiveness of the "made in U.S.A." labels, are these:

- *Perceptibility*: the ability of consumers to detect the presence or absence of a label. For sighted consumers visiting websites, this mainly consists of *visibility*.
- *Salience*: the degree to which a label is *noticable*, i.e., how much it stands out from other content on the page and attracts consumers' attention to it.
- *Discriminability*: the ease with which consumers can distinguish different labels graphically: can they do it at a glance or must they scrutinize a label carefully (or read its text) to see how it differs from others?
- *Legibility*: the ability of consumers to read any text contained in a label, i.e., to perceive and identify the letters and words it contains.
- *Intelligibility*: the degree to which consumers can understand the meaning of a label, including how its meaning differs from other notices. Intelligibility also requires consistency and lack of ambiguity.
- *Veracity*: the truth, reliability, trustworthiness of a label; the degree to which it can be taken at face value.

In the terms commonly used by experts on human perception and cognition, these criteria range from *low*-level (e.g., perception and salience) to *high*-level (e.g., understanding and trust).

## **Findings**

First I present my findings for **search results** pages, followed by my findings for **product** pages.

### **Search Results Pages**

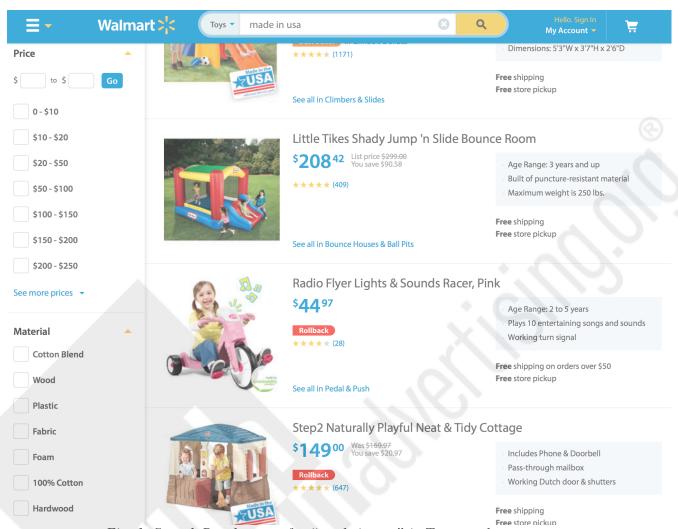


Fig. 1: Search Results page for "made in usa" in Toys product category.

In search results, Walmart's "Made in the USA" labels on items are placed so that they partly overlap the product photo, and the label size is about 1/12 that of the photo (see Fig. 1). The labels' colors, design, placement, and size are such that *as a whole* they will be visible (i.e., *perceptible*) and noticeable (i.e., *salient*) to normally-sighted consumers when displayed on a normal desktop or laptop display. Overall, Walmart's "Made in the USA" labels, when displayed in search results (assuming a normal desktop or laptop display), can be said to have sufficient *perceptibility* and *salience*.

However, the *discriminability* of Walmart's "Made in the USA" labels – the ease and speed with which people can distinguish them from Walmart's other product labels – is *insufficient*. First, it is diminished by the fact that Walmart uses two quite different "Made in the USA" label designs: the red, white, and blue one shown in Figure 1 (above), and the red and white one shown in Figure 2 (below). In this report

I will refer to the red, white, and blue design as *Design 1*, and the red and white one as *Design 2*. Having two different labels for the same purpose means that there is not a one-to-one mapping between the label and its meaning. That makes it harder for customers to recognize the label or distinguish it from Walmart's other product labels, such as the green "Sustainability" label that is displayed on some products (see the Radio Flyer Racer in Fig. 1). Customers could not see at a glance if a new label they encountered was yet another "Made in the USA" variant, or something else. They would have to examine it carefully.

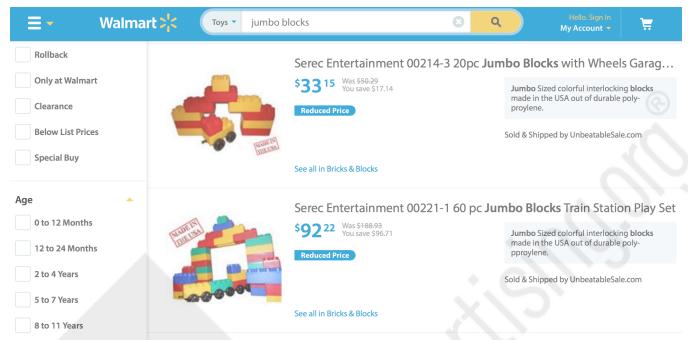


Fig. 2: Search Results page for "jumbo blocks" in Toys product category.

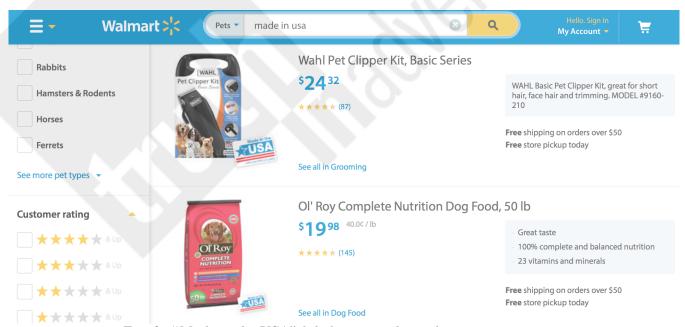


Fig. 3: "Made in the USA" labels in search results: inconsistent size.

Second, the *discriminability* of the "Made in the USA" labels in search results is diminished by the inconsistency of the size in which they are displayed (see Figs. 2 and 3). This inconsistency results from how the labels are implemented: they are combined *into* product images – the same product images that are displayed on individual product pages. Product images vary in size, but are scaled to fit into the same size area on product pages. The result is that some "Made in the USA" labels are smaller and therefore less salient and *discriminable* than others.

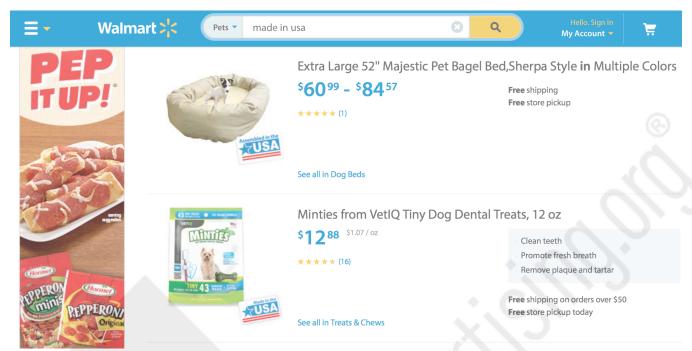


Fig. 4: "Made" versus "Assembled" in the USA labels in search results.

Third, the *discriminability* of the "Made in the USA" labels is diminished by the poor *legibility* of the text at the top and bottom of the labels in search results (see Fig. 4). The legibility of the text at the top of the label, which can be either "Made in the" or "Assembled in the", is marginal even for people with excellent or corrected vision, due both to the text's small size and the low contrast of light blue text on a white background. This text is especially hard to read when the labels themselves are small (see Figs. 3 and 4). For people who have uncorrected farsightedness (presbyopia) or who view search results on small-format screens, the text at the top of the labels is simply too small to be legible. If such people have not seen it earlier in larger format (e.g., on a product page), they would be unable to determine what it says. Even consumers who have seen that text already in larger format would, in search results, have trouble distinguishing "Made in the USA" from "Assembled in the USA".

Even more problematic is the qualifier text that on some labels appears below "USA", displaying the percentage of US parts (see Fig. 5). When viewed in search results, it is much too small and contrasts too poorly with its background for anyone to read, regardless of how good their vision is. Furthermore, the percentage given in that text varies between products, so even consumers who have seen that text in a larger format and know it gives a percentage will not be able to see what the percentage is for a product listed in the search results until they click through to the product's page. At best, consumers may be able to detect the presence or absence of this text, but that depends as much on the *salience* of the difference as on the sheer *visibility*.

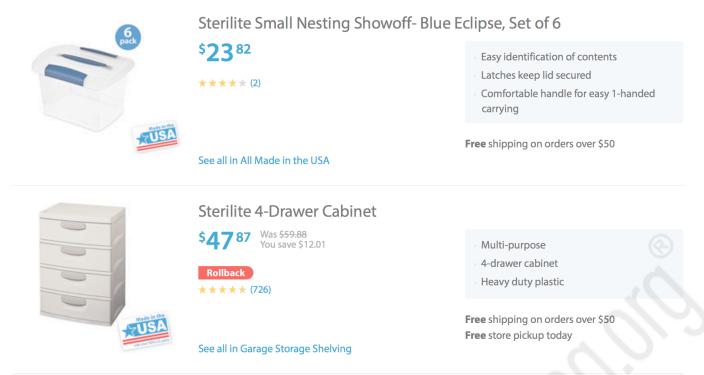


Fig. 5: "Made in the USA" labels in search results with and without percentage indicator text.

Therefore, the different varieties of "Made in the USA" labels are not easily *discriminable* from each other.

In search results, the *intelligibility* of the "Made in the USA" label is limited mainly to consumers' understanding its meaning from its gross visual appearance, since the detailed text on the label, especially the percent qualifier on the bottom, is illegible. Thus, when viewed in search results, the label can be regarded as a *symbol* with a single meaning: "this product is made in the USA". The problem is, the actual meaning of the label varies depending on precisely those aspects of it that many consumers cannot read in search results: the fine-print text above and below "USA".

A final factor limiting the intelligibility of the labels is that if one searches a product category (e.g., toys) for "made in USA", only about half of the products listed in the results have the "Made in the USA" label. It is unclear if that means: a) some products that are made in the USA not labeled as such, or b) some products found by a search for "made in the USA" are not made in the USA.

My findings concerning the *veracity* of the labels is the same for search results as for product pages, so I will save that discussion for the next section.

#### **Product Pages**

On product pages, as in search results, Walmart uses two quite different label designs to mark products as made in the USA (see Figs. 6 and 7), which in this report I am calling Design 1 and Design 2.

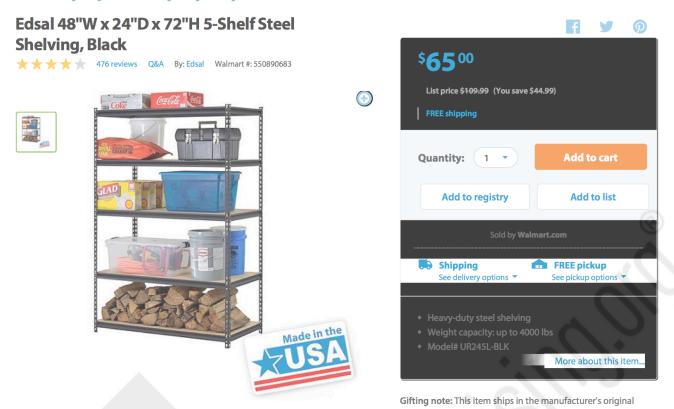


Fig. 6: "Made in the USA" label Design 1, displayed on a product page.



Fig. 7: "Made in the USA" label Design 2, displayed on a product page.

The labels, which as is explained above are combined into the product images, are on product pages almost always displayed at a reasonable size, so the text is large enough for people with normal or corrected vision to see and read. It is also helpful that on products that need it, a percentage parts qualifier is placed directly on the "Made in USA" label rather than somewhere else on the page. Thus, on product pages, the *perceptibility* and *salience* of the "Made in the USA" labels seems sufficient.

However, people with uncorrected far-sightedness (presbyopia) or other more serious vision problems (e.g., macular degeneration) will have difficulty reading the percent-qualifier text at the bottom of some labels, due partly to the text's small size and partly to low contrast of the light blue text on a white background. Therefore, I consider the *legibility* of the qualifier text at the bottom of some of the labels to be borderline: sufficient for consumers with good or corrected vision, insufficient for others.

Discriminability, intelligibility, and possibly veracity are where the labels on product pages fall short.

As mentioned in my analysis of search results (above), the use of two different "Made in USA" label designs (Design 1 and 2) can compromise customers' ability to see at a glance what type of label they are looking at. Adding to customers' potential confusion is the fact that Design 1 itself has several variants: it appears with the words "Made in the USA" or the words "Assembled in the USA" (see Fig. 8). Furthermore, when label Design 1 has "Made in the USA", it may appear with or without a partspercentage (see Fig. 9).



Fig. 8: Assembled in USA label displayed on a product page.

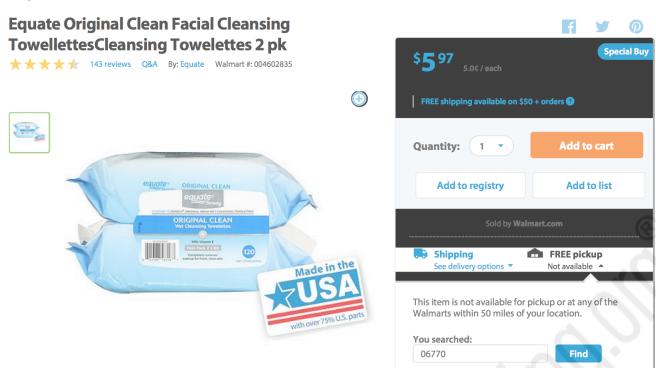


Fig. 9: Made in USA label with parts percentage, displayed on a product page.

On product pages only one labeled product is shown, so Walmart customers looking at one variant of the label might not realize that there are other variants. As an example, a customer might enter the website, browse or search to get to a product page, see one variant of the label, and then either purchase the product or leave the site, all without seeing the other variant of the label. Or the customer could even browse to another product page that shows the other variant, but simply not pay notice the difference because the customer's attention is focused on other aspects of the product.

The fact that the label has several variants, some meaning the same thing and some meaning different things, also compromises their *intelligibility* – the ability of consumers to understand what they mean. For example, even if a customer notices that products on Walmart.com can have "Made in..." or "Assembled in..." labels, they might not understand what "assembled" means compared to "made".

This raises the question: what products are listed under "Made in the USA" versus "Assembled in the USA"? Can products labeled as "Made in the USA" be made from 100% foreign-made parts that are assembled in the USA? Unfortunately, the labels do not link to explanations of their meanings.

A bigger problem that detracts from the *intelligibility* of the "Made in the USA" labels is the lack of clarity of the phrase "with over NN% U.S. parts". Since parts can be made of parts, are "U.S. parts" made entirely in the U.S. or assembled here? What percentage of "U.S. parts" qualifies a product to have the "Made in the USA" label: must it be more than 50%? These are the sorts of questions that will arise in customers' minds as they view product pages. They won't be sure what the qualifier means, and because the labels are not clickable links, they cannot easily get an explanation.

Each product page has a Specification section that provides detailed information about the product. The Specification includes data on the product's "Assembled in Country of Origin" and "Origin of

Components". At first glance, consumers might expect that information to clarify the meaning of the percent qualifier, but on closer scrutiny, this information confuses more than it clarifies.

The first problem with the Specification is the field labeled "Assembled in Country of Origin". That is not a clearly worded label. It seems to state "Whatever country this product originated in, that's where it was assembled." But that doesn't make much sense, especially since that field's value is either "USA" or "foreign". Presumably the intended interpretation is "Country where assembled", i.e., parsing the phrase not as a verb ("assembled") and a prepositional phrase ("in country of origin"), but instead as an adjective ("assembled-in") and a noun phrase ("country of origin"). But the latter parsing is Walmart internal jargon, which consumers cannot be expected to know or understand.

More serious damage to the intelligibility of Walmart's "Made in the USA" labels is caused by the lack of a consistent relationship between the label and the country-of-origin information in product Specifications. Some examples from Walmart.com's Toys and Pets sections:

- The Crayola Air-Dry Clay, 2.5 lb Tub is labeled "Made in the USA" with no percentage, indicating that it is totally made in the USA. However, its specs are "Assembled in Country of Origin: USA or Imported" and "Origin of Components: USA or Imported" (see Fig. 10), which suggests otherwise.
- The Step 2 Grocery Cart is labeled "Made in the USA with over 50% US parts" (which I abbreviate as MUSA-50), but its specifications say it is assembled in USA with componenents only from USA (see Fig. 11). It is unclear why his product has a percentage qualifier if it is totally made in the USA.
- The specifications of the Radio Flyer wagon are "Assembled in Country of Origin: USA" and "Origin of Components: USA or Imported", but it has the "Sustainability" label instead of the MUSA-50 label (see Fig. 12).
- The Majestic Large Pet Bed is labeled "Assembled in the U.S.A.", with no percentage, indicating that it is totally made in the USA. However, like the Crayola Air-Dry Clay, its specifications are: "Assembled in Country of Origin: USA or Imported" and "Origin of Components: USA or Imported" (see Fig. 13).

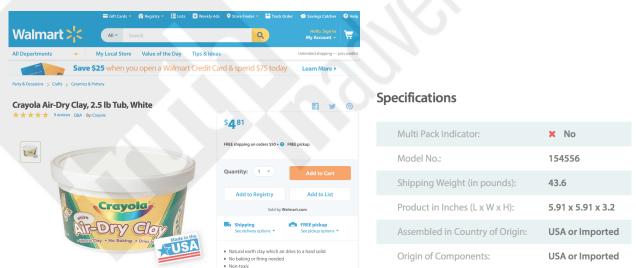


Fig. 10: Product page and Specifications for Crayola Air-Dry Clay, 2.5 lb Tub

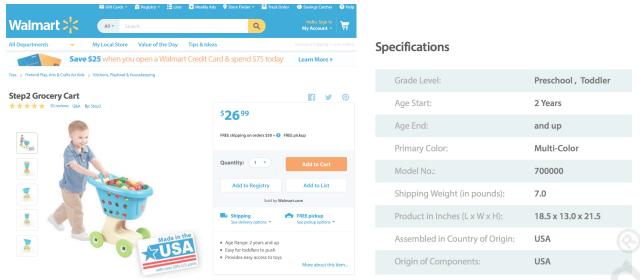


Fig. 11: Product page and Specifications for Step 2 Grocery Cart

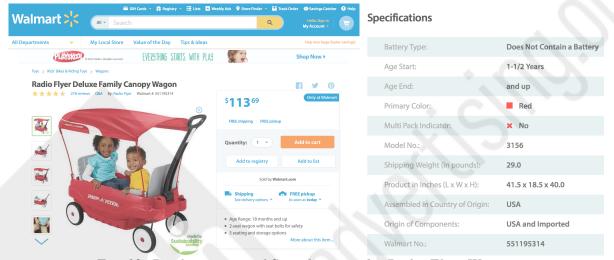


Fig. 12: Product page and Specifications for Radio Flyer Wagon

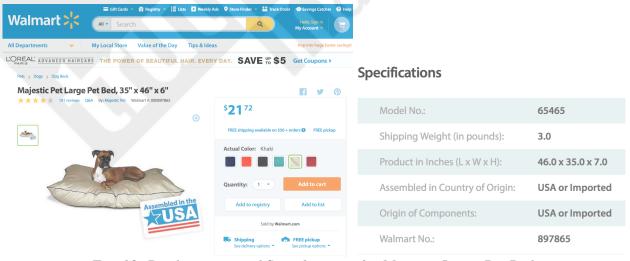


Fig. 13: Product page and Specifications for Majestic Large Pet Bed

Finally, in some product specifications Assembled in Country of Origin and Origin of Components are given as "USA *and* Imported" while others are labeled "USA *or* Imported" (see Figs 10 and 12). It is unclear if this subtle difference is intentional on Walmart's part or is just the result of inconsistent wording. If it is intentional and indicates a difference, that difference will be unclear to most Walmarts customers.

These inconsistencies will almost certainly confuse customers who try to use the product Specifications to gain an understanding of the "Made/Assembled in the USA" labels. In summary, the fine-grained discriminability and intelligibility of Walmart's "Made in the USA" labels on product pages can fairly be assessed as insufficient.

To the extent that consumers read the product specifications, the apparent inconsistencies between the information displayed there and the "Made in the USA" labels may make them question the *veracity* and trustworthiness of the labels. On the other hand, if consumers *don't* check the product specifications, they may simply trust the labels, even if the labels are misleading.

#### **Inconsistent Labels on Search Results Pages versus Product Pages**

Finally, some products on Walmart's website that have Made in USA labels on search results pages have no labels on the corresponding product pages. One example is the Little Tikes Cook & Grow Kitchen (see Figs. 14 and 15). The lack of a MUSA label on this Product page is correct, since the specifications indicate that the product is entirely imported. Therefore, the MUSA label on the search results page is erroneous and misleading. However, this product is just one of many examples of this inconsistency between the search results page and the product page.



Fig. 14: Search Results listing for Little Tikes Cook 'N Grow Kitchen

#### **Specifications** Walmart 💥 Age Start: 18 Months Age End: and up Save \$25 when you open a Walmart Credit Card & spend \$75 today Battery Type: Alkaline Primary Color: Multi-Color Little Tikes Cook 'N' Grow Kitchen Multi Pack Indicator: × No \$**76**<sup>49</sup> Model No.: 626012M Shipping Weight (in pounds): 26.8 Product in Inches (L x W x H): 46.75 x 14.75 x 32.5 Assembled in Country of Origin: Imported Origin of Components: Imported Walmart No.: 550579938

Fig. 15: Product page and Specifications for Little Tikes Cook 'N Grow Kitchen

### **Conclusions**

In both search results and on project pages, the labels Walmart uses to mark products as made or assembled in the USA can be assessed as follows:

- Perceptibility: ......Pass
- Discriminability: ...... Fail
- Legibility: ......Fail
- Intelligibility: ......Fail
- Veracity: .....possibly Fail

Since the labels do not meet all the criteria required for *clarity*, they are, in my judgment, not *effective* in ensuring that consumers who shop at Walmart.com can be confident that they know what they are buying.

## Appendix: Qualifications of Jeff Johnson, Ph.D.

Dr. Jeff Johnson is President and Principal Consultant at UI Wizards, Inc., a product usability consulting firm that offers UI design, usability reviews, usability testing, and training (http://www.uiwizards.com). He also is a principal at Wiser Usability, a consultancy focused on elder usability and universal accessibility (http://WiserUsability.com). He has worked in the field of Human-Computer Interaction since 1978. After earning B.A. and Ph.D. degrees in Cognitive Psychology from Yale and Stanford Universities, he worked as a user-interface designer and implementer, engineer manager, usability tester, and researcher at Cromemco, Xerox, US West, Hewlett-Packard Labs, and Sun Microsystems. He has taught at Stanford University and Mills College, and in 2006 and 2013 was a Visiting Erskine Fellow at the University of Canterbury in Christchurch New Zealand. He frequently gives talks and tutorials at conferences and companies on usability and user-interface design. He has been an ACM Distinguished Speaker, and in 2014 was inducted into the ACM SIGCHI Academy. In 2014 he was invited by the U.S. Federal Trade Commission to speak at a workshop they hosted on Native Advertising (https://www.ftc.gov/news-events/events-calendar/2013/12/blurred-lines-advertising-or-content-ftcworkshop-native). He has published numerous articles and book chapters on a variety of topics in Human-Computer Interaction and the impact of technology on society, and has authored or co-authored these books:

- GUI Bloopers: Don'ts and Dos for Software Developers and Web Designers (2000)
- Web Bloopers: 60 Common Design Mistakes and How to Avoid Them (2003)
- GUI Bloopers 2.0: Common User Interface Design Don'ts and Dos (2007)
- Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules (2010)
- Conceptual Models: Core to Good Design (2011; coauthored with Austin Henderson)
- Designing with the Mind in Mind, 2nd Edition (2014)

More information about Jeff Johnson, including a full C.V., is available at <a href="http://www.UIWizards.com/about.html">http://www.UIWizards.com/about.html</a>