An analysis of green advertising for food and household cleaning products from 1960-2008

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Abstract

Misleading or unsubstantiated use of environmental claims, or “greenwashing” becomes a problem when there is little regulation and green advertisements are widespread. Currently there are few regulations on the use of environmental claims in advertisements. In order to get a better picture of the trends in the frequency of environmental claims in advertising, food and household cleaning product advertisements in quarterly issues of Better Homes and Gardens and Good Housekeeping were sampled every four years from 1960-2008 to measure the level of “greenness” of advertisements over time. A modified version of the MECCAS (Means-End Conceptualization of the Components of Advertising Strategy) was used to classify the level of “greenness” in advertisements. This analysis found an increase of yearly maximum values between 5-10% from 1976 to 2004 to a maximum value of 28% in 2008.

Introduction

The increase in the use of reusable grocery bags, the discussion of carbon taxes and the appearance of mandatory recycling in some cities all point toward an increase in consumers’ environmental concerns. As a result, companies are aware of the benefits of touting their “greenness.” This can be observed in products such as Clorox’s Green Works or Nestle Pure Life Eco-Shape water appearing on shelves.

However, green advertising is not a new marketing strategy. In fact, Ken Peattie (2001) claimed in 2001 that we were entering the third age of green marketing. He described the first age as occurring as a response to the social and environmental concerns expressed in Rachel Carson’s Silent Spring and the Club of Rome’s Limits to Growth. As a result, the first age focused on environmental issues such as pesticide use and air and water pollution. Peattie
described the second age as emerging in the late 1980s in response to the environmental disasters including the Bhopal tragedy in 1984, the discovery of the Antarctic hole in the ozone layer in 1985, Chernobyl in 1986 and the Exxon-Valdez oil spill in 1989. The second age of green advertising ended in the mid-1990s when new green products failed to simultaneously be environmentally friendly, cost competitive, and of equal quality as existing products. Peattie argued the next age of green marketing, the third age, must be driven by sustainability arguments.

Polls in the early 1990s indicated strong support for environmental issues (Roper 1992) and this support was reflected in the global Earth Day 1990 celebration. The environmental interest leading up to 1990 may have been evidenced in the 430% increase in green print advertisements and the 367% increase in green television advertisements from 1989 to 1990 (Ottman 1993). Here marketers likely recognized the opportunity to capitalize on green consumers. Additionally, because most consumers rely on the mass media rather than from environmental newsletters or government publications for information about environmental issues (Iyer and Banerjee 1993), marketers gained a large influence on the public understanding of environmental issues.

As a result, a primary concern about green advertising is that many of the environmental claims being made are either unclear to consumers, entirely unsubstantiated, or both. Carlson, Grove, and Kangun (1993) found that in green advertisements, only 40% of environmental claims were unambiguously true, 42% were vague, and 18% were either outright lies or errors of omission. The misleading or unsubstantiated use of environmental claims has been termed “greenwashing.” (Kärnä et al. 2001). Greenwashing becomes a problem when green advertising becomes pervasive with little regulation over the use of and accountability for the environmental
claims. While the Federal Trade Commission (FTC) provides recommendations for the use of environmental claims in advertisements, these guidelines are not themselves enforceable regulations (Guides for the use of Environmental Marketing Claims 1991).

The primary problems with greenwashing are public confusion about environmental issues and deception about which purchases are environmentally responsible. Further, it may leave consumers with a positive feeling that they have done their part for environmental conservation by purchasing organic clothes or switching shampoo brands. These feel-good product switches may hinder the environmental movement by emphasizing consumerism and deterring from true environmental progress. In addition, some companies making green claims are actually significantly harming the environment. For example, in 2008, the Malaysia Palm Oil Council produced a green advertisement claiming “Its trees give life and help our planet breathe, and give home to hundreds of species of flora and fauna. Malaysia Palm Oil. A gift from nature, a gift for life.” However, critics pointed out that palm oil plantations are linked to rainforest species extinction, habitat loss, pollution from slash and burn methods, and destruction of flood buffer zones (Dahl, 2010).

Considering the potential problems of greenwashing, it is important to get a picture of the amount of green advertising consumers are encountering. This study investigates both the frequency of green advertising and the degree of green advertising since advertisements use different degrees of environmental messaging. Further, it looks at the trends in both the frequency and degree of green advertising over time from 1960 to 2008.
Methods

Advertisements are an important unit of analysis because they address public perceptions from two directions: first, they may influence society’s views of environmental issues, and second, they indicate what types of messages marketers assume to appeal to consumers. Print advertisements were selected for this study because they could be traced back to 1960. Of the print advertisements, only food and household cleaning product advertisements were analyzed because both categories are common in magazines back to 1960. Advertisements were sampled from Better Homes and Gardens and Good Housekeeping because these magazines are archived since 1960 and contain many food and household cleaning product advertisements and both target similar audiences. Quarterly issues (January, April, July and October) of each magazine were sampled to account for possible seasonal trends and samples were collected every four years to measure the level of "greenness" over time from 1960 to 2008. The year 1960 was chosen as the first year sampled so that our sample would predate the Clean Water Act (1972), Clean Air Act (1970), the first Earth Day (1970), and Rachel Carson’s Silent Spring (1962).

During the sampling of advertisements, the definition of “food” included items that would be ingested on their own, including condiments and beverages. As a result, “food” was then considered to be something that would be a served at a table. Vitamins, seasonings, pet food, cooking oil, etc., on the other hand, were excluded because they do not fit this description. Household cleaning products were defined as items that are used to clean the house or portions of the house and are regularly replaced. This means that appliances that clean items in the house, such as dishwashers, vacuums or mops were not included.
The advertisements were analyzed using a modified version of the MECCAS (Means-End Conceptualization of the Components of Advertising Strategy). The MECCAS model creates a hierarchy for the importance of elements in advertisements (Wagner and Hansen 2002). In the rubric (Table 1), an advertisement containing an **important environmental claim** was considered to be the most important feature, and therefore is the minimum criterion for an advertisement being classified as any level of green. Important environmental claims were identified by the inclusion of the words “environment,” “green” or “natural,” as a prominent feature of the advertisement. The second most important feature for an advertisement to be categorized as a higher level of green is the **executional framework**, or whether the advertisement “looks green.” This could mean that the advertisement includes images of plants, animals or natural landscapes, or that it has an intensive use of the color green. The next most important feature of a green advertisement is that it mentions the **product life cycle**. This could be any aspect of the product creation, decomposition or environmental impact, such as the use of less packaging materials or that the product is recyclable. The final features to be considered are **driving forces and leverage points**. Driving forces are basic values such as promoting planet preservation, animal life or personal health. Leverage points link the driving force with a concrete message (Wagner and Hansen 2002). As shown in the rubric, the only way for an advertisement to be classified as the highest level of green, i.e. extra green, is for it to contain all four requirements.
<table>
<thead>
<tr>
<th>A</th>
<th>Important environmental claim</th>
<th>B</th>
<th>Executional framework (looks “green”)</th>
<th>C</th>
<th>Product life cycle</th>
<th>D</th>
<th>Driving force and leverage point</th>
</tr>
</thead>
<tbody>
<tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Green</td>
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<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green-brown</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Green-brown</td>
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<td>✓</td>
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</tr>
<tr>
<td>Brown</td>
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<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Rubric used to score the advertisements developed by Wagner and Hansen (2002).

For example, Figure 1 shows an example of an advertisement scored as extra green. The important environmental claim is in the main title referencing the environment, the reference to “natural spring water” and the naming it an “Eco-Shape” bottle. The placement of the bottle in the grass beside a stream satisfies the executional framework category. The product life-cycle is mentioned in the “dye-free cap,” the “less paper” used for the label, and the “30% less plastic” used in the bottle. The driving force and leverage point is satisfied by the claim that it “has less impact of the earth” and “a little natural does a lot of good.”
Inter-rater reliability was established by selecting two senior marketing students and providing each with the rubric (Table 1). Two random samples of advertisements were generated: 20 advertisements from all years and 45 advertisements from 2008. Each marketing student scored both samples independently of one another and of the researcher. Each student’s scoring was compared with the researcher and resulted in 91.3% and 82.6% agreement on the categorization of the advertisements.

After inter-rater reliability was established, the remaining advertisements were scored by the researcher alone. During rating, the researcher did not know which magazine issue and advertisement came from because advertisements were labeled based on a numbering system independent of the magazine issue. The number of advertisements collected for each magazine and category is presented in Table 2. Results were compiled and summarized.

<table>
<thead>
<tr>
<th></th>
<th>Food</th>
<th>Household Cleaning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Better Homes and Gardens</strong></td>
<td>901</td>
<td>241</td>
<td>1142</td>
</tr>
<tr>
<td><strong>Good Housekeeping</strong></td>
<td>794</td>
<td>342</td>
<td>1136</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1695</td>
<td>583</td>
<td>2278</td>
</tr>
</tbody>
</table>

Table 2: A summary of the number of advertisements collected, by magazine and product category.

**Results**

The overall trend in the level of greenness for food and household cleaning product advertisements appears to have been relatively low, with the total green messaging in advertisements staying around 5% from 1960 to 1976. Then, from 1976 to 1992 it seems to increase to fluctuate around 10%. There appears to be a decrease from 1996-2000, with levels
between 0% and 5%. The level of greenness increases back to 10% in 2004 and then dramatically increases to 28% in 2008 (Figure 2).

**Figure 2**: A plot of the proportion of advertisements with the indicated level of greenness over time for food and household cleaning products combined.

Figure 3 offers a comparison of food versus household cleaning product advertisements, with the level of greenness fluctuating between approximately 5% and 10% peaks from 1960 to 2004 for food advertisements. There is then a large increase to approximately 25% in 2008. The household cleaning product advertisements on the other hand, have very little green messaging, with the exception of 10% peaks in 1984, 1992 and 1996, until 2004 when it increases to about 20% and then to about 40% in 2008. Further the amount of intensive “extra green” advertising has increased relative to the total proportion of green advertising for both categories (Figure 2 and Figure 3).
To look more closely at green advertising in recent years, the proportion of advertisements using any form of green advertising from the five most recent sample years (1992, 1996, 2000, 2004, and 2008) were plotted by month (Figure 4). The year 2008 is clearly separated from the previous sample years, with approximately twice the amount of green advertising as any of the four preceding sample years for each month. Further, the proportion of green advertising in 1992 was similar to the proportion of green advertising in 2004, with the proportion of green advertising in 2000 being slightly lower than both 1992 and 2004 and the proportion of green advertising in 1996 being the lowest of the 5 years considered here. Also, in the four most recent years, there appears to be a seasonal trend, with an increase in green
advertising from January to April, a decrease from April to July, and then it stays fairly constant from July to October.

Figure 4: A plot of the proportion of advertisements using any level of green advertising by month for the years 1992, 1996, 2000, 2004, and 2008.

**Discussion**

This analysis has shown that both the overall use of any form of green messaging, and the use of intensive “extra green” advertising relative to the amount of total green advertising has increased dramatically from 2004 to 2008. Because there is a rapid increase from 2004 to 2008, it may be useful to more closely investigate advertisements from 2005, 2006 and 2007 to get a better picture of when this change occurred in a future study.

Based on this study, one can only speculate about the cause of the increase from 2004 to 2008 and/or any of the other changes in trends. However, it would be interesting for future studies to look at patterns in environmental policy, social movements and the health of the economy as possible causes for changes in green advertising. The trends observed in this
analysis coincide with the three waves of green marketing described by Peattie. However, the third age of green marketing comprise a larger portion of the total food and household cleaning product advertising than the first and second age of green marketing.

Another interesting future direction would be conducting a content analysis of current green advertisements. Because we know that over a quarter of food and household cleaning product advertisements in Good Housekeeping and Better Homes and Gardens are using some sort of environmental messaging, it is important to consider what types of messages are present and whether or not the environmental claims are substantiated. Considering the prevalence of green advertisements, there is a threat of greenwashing occurring. This use of unsubstantiated claims encourages consumerism over reducing waste and can detract from true environmental progress. Therefore, an analysis of whether or not these environmental claims are substantiated would provide guidance on regulation of the use of environmental claims.
References


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