



Do Female Consumers React to “Natural” Claims on Food Labels?

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A recent series of consumer class action law suits have centered on the use of “natural” claims on food and beverage product packages. A discussion of the general legal environment surrounding these messages is provided in Parasidis, Hooker and Simons (2015). However, to date there has been no comprehensive analysis of consumer reaction to the range of natural claims seen in the market. This report summarizes insight from a series of consumer surveys conducted in 2013 which evaluated the reaction of female consumers of the products implicated in four of these law suits. The report ends by drawing lessons for contemporary food policy.

Methods and Findings

A sample of four law suits were identified, each spanning several real-world products and the claims they made. These included “All Natural”, “100% Natural”, “100% Pure & Natural”, “All Natural Flavors” and “Nothing Artificial.” Using members of a commercial online panel, a series of surveys were conducted using prior consumers of the particular products who were also the primary grocery shopper for the household. Each survey sample included approximately 1,000 consumers. As response rates were unbalanced by gender, this report only includes the answers of females.

As a first step consumers were presented with pictures of two product labels identical apart from the natural claim and asked to review the pictures carefully and, assuming both products were offered for the same price, select the one product they would be more likely to purchase. A few illustrative examples of these pictures are included below.

Brand	Sample size	Products	Claim
Trader Joe’s	1,004	Cookies Bakery - biscuits Apple juice	All Natural
		Ricotta cheese	100% Natural
Bear Naked	1,227	Granola Breakfast cereal Cookies Trail mix	100% Natural 100% Pure & Natural
Dreyer’s	851	Ice cream	All Natural
Edy’s			All Natural Flavors
Haagen-Dazs			
Kashi	885	Waffles Oatmeal Breakfast cereal Crackers	Nothing Artificial (front of pack)
	792	Breakfast cereal Entrée Snacks	All Natural (front of pack)
	2,763	Snacks Shake Waffles Breakfast cereal	All Natural (side of pack)
	612	Breakfast cereal	All Natural (back of pack)

This exercise was designed to determine if, otherwise unprompted, consumers noticed the various claims. Some claims were prominent, others less so. Most were located on the front or top of the package, others on the side or back.

Across all claims, products, brands and location of claims there was very strong statistically significant evidence (χ^2 test) that consumers prefer products with a natural claim. Even when minor (one word on the side of a pack of Kashi cereal) or located on the back of pack a significant proportion of consumers selected the products with a claim suggesting ***the presence of a natural claim is material***.

Next, the survey asked which product claims are important in influencing purchase decisions, providing a list of these claims most commonly seen on food and beverage products including; organic, low fat, local, fair trade, natural, Kosher, etc.

It is common for price, taste and nutrition to be listed as important product claims confirming this

Rank	Claim (number selecting)			
	Trader Joe's	Bear Naked	Ice Cream	Kashi
1	Low price (674)	Taste (787)	Taste (621)	Taste (2,119)
2	Taste (642)	Low price (775)	All natural (458)	Nutrition (2,106)*
3	Low fat (628)	Low fat (606)	Low price (435)	Low price (1,987)
4	All natural (529)	100% natural (603)	Low fat (340)	All natural (1,775)
5	Low sugar (528)	Low sugar (594)	All natural flavors (327)	Low fat (1,727)

* Nutrition was only used in the Kashi surveys given the range of products assessed.

here suggests respondents were being thoughtful in their answers. That natural claims are also listed in the top 5 for each survey is notable suggesting these ***natural claims are influencing product purchase decisions***.

Over the various natural claims reviewed consumers were asked what they believed the claim to mean, testing the concept “natural” as well as “man-made or artificial”.

	Trader Joe's		Bear Naked		Ice Cream	Kashi	
	All Natural	100% Natural	100% Natural	100% Pure & Natural	All Natural Flavors	All Natural	Nothing Artificial
All of the ingredients in the product are natural	436	311	685	624	311	1,961	827
Some of the ingredients in the product are natural	224	38	186	96	262	460	358
None of the ingredients in the product are man-made or artificial	236	138	70	31	95	652	1,301
Some of the ingredients in the product are man-made or artificial	36	9	214	395	103	140	124

Consumers general appear to believe a natural claim applies to all ingredients whether the claim is specific or not. However, there is also evidence of ***confusion in what the natural claim actually means*** given the range of responses across brands and claims.

Finally, consumers were asked how much more (cents per package) they would expect to pay for the various products bearing natural claims compared to a product not making that claim. Respondents were given five choices; 5+ cents more, 1-4 cents more, the same price, 1-4 cents less, and 5+ cents less.

Note, this is not a willingness to pay measure, rather the belief of prior consumers of these products of the “marginal value” of the claim as presented in the market.

	Nothing Artificial	All Natural	All Natural Flavors	100% Natural*
5+ cents less	189	537	65	256
1-4 cents less	158	265	23	153
Same price	1,414	2,896	607	1,937
1-4 cents more	663	1,280	149	922
5+ cents more	1,116	2,738	361	2,066

* Includes 100% Pure & Natural

Aggregating across all products with similar claims leads to an interesting bimodal pattern. Consumers were split between expecting this to be priced the same and 5 or more cents per package higher than a comparable product without the claim. That said in each case a large share of respondents selected one of the two higher price levels, suggesting they **expect natural claims to have a positive impact on price**. There is no distinguishing difference across columns, suggesting this mixed valuation is common to any of the various types of natural claims.

Implications for Food Policy

This consumer data is not intended to be representative of the entire US population. Responses are specific to brands, products and claims and are further restricted to come from prior consumers, primary grocery shoppers and females. That said, broad lessons can be drawn. Natural claims are important to these consumers – they notice the messages and use natural claims to make purchase decisions. At the same time these consumers are confused about what the natural claims actually mean. Natural claims are expected to support a price premium by a majority of respondents. All of these factors suggest the need for further analysis of this consumer confusion which may prompt increased food policy scrutiny. Indeed, Congress is currently considering a Bill (H.R. 1599, 114th Congress) which would amend the Federal *Food, Drug, and Cosmetic Act* to include provisions controlling the use of express or implied ‘natural’ claims on labels.

For Further Reading

Parasidis, Efthimios, Neal H. Hooker and Christopher Simons. 2015. Addressing Consumer Confusion of “Natural” Food Claims. *American Journal of Law & Medicine*. 41 (2&3): 357-373

Example Pictures

Dreyer's

 <p>A tub of Dreyer's Ice Cream, Chocolate flavor. The tub is yellow with a brown and white striped lid. The lid features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. A scoop of chocolate ice cream is visible. The text 'ALL NATURAL' is printed on the lid. The tub body also features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. A small 'ALL NATURAL' logo is visible on the side of the tub.</p>	 <p>A tub of Dreyer's Ice Cream, Chocolate flavor. The tub is yellow with a brown and white striped lid. The lid features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. A scoop of chocolate ice cream is visible. The text 'ALL NATURAL FLAVORS' is printed on the lid. The tub body also features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. A small 'ALL NATURAL FLAVORS' logo is visible on the side of the tub.</p>	 <p>A tub of Dreyer's Ice Cream, Chocolate flavor. The tub is yellow with a brown and white striped lid. The lid features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. A scoop of chocolate ice cream is visible. The tub body also features the Dreyer's logo, 'Ice Cream', and 'Chocolate'. No 'All Natural' claim is present on the tub.</p>
<p>All Natural</p>	<p>All Natural Flavors</p>	<p>No Claim</p>

Kashi



No Claim



Nothing Artificial – Front of Pack



No Claim



Natural Ingredients – Side of Pack



No Claim



All Natural – Back of Pack