

# Assessing Consumers' Perceptions of Health Claims

## Presentation of IFIC Foundation Consumer Research on Health Claims and Other Label Statements

Wendy Reinhardt Kapsak, MS, RD

Director, Health and Nutrition

International Food Information Council (IFIC) and IFIC Foundation

Food and Drug Administration (FDA)

Public Meeting

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# Today's Presentation

- About IFIC and IFIC Foundation
- Letting Consumers Have A Say
  - IFIC Foundation Research on Health Claims and Other Label Statements
- Summary of Findings

# International Food Information Council (IFIC) and IFIC Foundation

- Mission:

To communicate science-based information on food safety and nutrition issues to health professionals, media, educators, and government officials.

Primarily supported by the food, beverage, and agricultural industries.

# IFIC Foundation Web Site

## In English and Spanish

ific.org  
and  
ific.org/sp

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Caffeine is no more a diuretic than water.

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In the Spotlight

**Duis optimum sapien est fruit fincidull**

Posseñ entre et odio. Ultrac do et erat placerat ut firsceas. Nulla non nibner in leo torfo et ante. Posu mme at oido. Ut nec erat noon nuent metus libero. Fusce molestie, chui uterioe egeate la roletet, metus livero agittis ewert, id solatted. Dui interes egate, metus libero sagittoso la siff.

Nutrition & Food Safety Information

**Nutrition Information**

Adult Nutrition & Health

Functional Foods

Child & Adolescent

Nutrition and Health

Dietary Fats & Fat Replacers

**Sugars & Low Calorie Sweeteners**

Food Ingredients

Nutrition & Oral Health

Obesity & Weight Management

**FEATURED Sugars & Low Calorie Sweeteners**

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**Food Safety Information**

Agriculture & Food Products

Food Allergies & Asthma

**Food Biotechnology**

Food Safety & New Technology

International Food Issues & Resources

**FEATURED Food Biotechnology**

Posturas at odio, ut nec erat nun unc placerat utti hotez fere null enter. Nullam verios toroe et ante. Posu juste net fater at, odigo ut net. Warenta, non nmunc utallas. Ut ente ali chirmam ente psuime inrua. Fusce molestie, chui uteris eegas haosoo metus liver. Sagittis, id sodallas, metus liber. [>>More](#)

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# IFIC Foundation's *Food Insight*

- 45,000 circulation
- 7% international
- 6,000 media
- Also available electronically

Current Topic in Food Safety & Nutrition

## FOOD Insight™

IFIC Foundation <http://ific.org> March / April 2005

### Whole Grains on the Rise

**Latest Dietary Guidelines Recommend "Make half your grains whole."**

In the aftermath of the low-carb diet trend, grains are making a comeback. In fact, whole grains are finally receiving some well-deserved recognition. Research has clearly shown that eating a diet rich in whole grains is associated with significant health benefits, including reduced risk of heart disease, certain types of cancer, and type 2 diabetes, and may also help in weight management.

The evidence of the benefits of whole-grain foods was so convincing that the 2005 Dietary Guidelines for Americans went beyond the previous 2000 guidelines and now urge consumers to consume at least three servings of whole grains per day on the basis of research that links the greatest health benefits to three servings of whole-grain foods. For younger children the recommendation is to gradually increase whole grains in their diets as they grow. Regardless of age, all Americans should strive to get at least half their grains as whole grains. Most Americans currently consume less than a single serving of whole grains daily.

"With the decline of low-carbohydrate diets, grains are slowly coming back to the plate," says Julie Jones, a professor of nutrition at the College of St. Catherine in St. Paul, Minn. "This is a great opportunity to educate the public about choosing whole grains for at least half of their servings of grain foods."

**More than Just Fiber**

Consumers typically associate whole grains with fiber and may mistakenly believe they can leave out whole grains if they get their fiber from other foods. "Whole grains are much more than a vehicle for fiber," says Joanne Slavin, a professor of nutrition specializing in whole-grain foods at the University of Minnesota. "Actually, a whole-grain food, such as bread or cereal, is not always a significant source of fiber."

Research demonstrates that the health-promoting benefits of whole grains are attributed to more than just fiber. Slavin explains that these health advantages are largely associated with the "package" of nutrients in whole grains. In addition to providing fiber, whole-grain foods provide vitamins, minerals, literally hundreds of phytonutrients, including phytoestrogens, antioxidants, polyphenols, and beneficial enzyme inhibitors. Phytonutrients are substances in plant-based foods with physiologically active components that have functional health benefits.

"The individual components of whole grains have an additive and synergistic effect. It's the combination and interactions between components that we believe provide the protection against disease. Whole grains are an example of how the whole (grain) is often greater than the sum of its parts," says Slavin.

The fiber content of different whole-grain foods can vary considerably, between 0.5 and 4 grams of fiber per serving, depending on the food category and serving size. Grain foods with more than 4 grams of fiber usually contain an isolated fiber source, such as bran, and may not be considered whole grain.

Yet, nearly all consumers and even many health professionals are not

*(continued on page 5)*

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**INSIDE** Translating the Facts about Trans Fat ..... 2  
 Food Safety Is Important for Seniors ..... 4  
 NewsBites ..... 7

# Qualified Health Claims (QHC) Consumer Research Objectives

- 1) Measure consumer reaction to the FDA-proposed 4 levels of health claims on basis of:
  - **Strength of scientific evidence**
  - Overall healthfulness of the product
  - Perception of product quality
  - Perception of product safety
  - Purchase intent

# **QHC Consumer Research Objectives**

- 2) Determine whether consumers differentiate between dietary guidance and health claims.**
- 3) Examine the impact of structure-function claims and alternative language versus qualified and unqualified health claims.**

# Methodology and Study Design

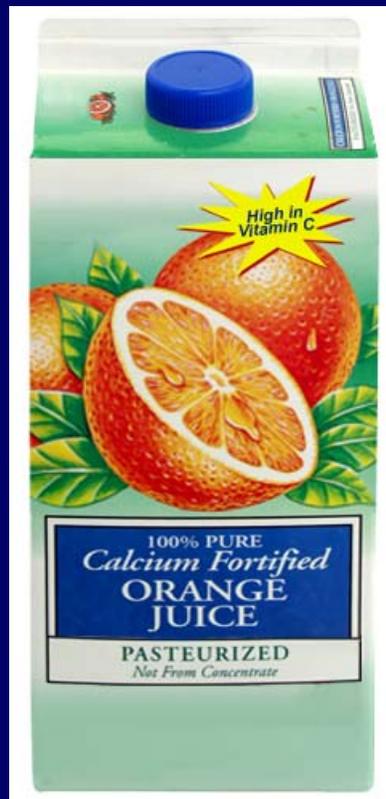
## *Cogent Research* (Cambridge, MA)

- Consultation with FDA on survey design and later, on methodology and additional analysis
- *Web-based survey* (monadic design and split sampling)
- *Sample population*: U.S. Adults (18+)
- *Sample size*: 5,642
- *Data Weighting*\*: By gender, age, education, and income
- *Mode of Comparison*: statistical means; additional included ANOVA and post hoc tests

\* To match US Census



# Products Tested



**Orange Juice**  
*Calcium &  
Osteoporosis*



**Pasta Sauce**  
*Lycopene &  
Cancer*



**Breakfast Cereal**  
*Tritium &  
Diabetes*

# Proposed FDA 4-levels of Health Claims:

## *FDA-IFIC Tested Formats* (examples at “B” level stated below)

### 1. Report Card Graphic

- “[Component] may reduce the risk of [disease].” (including check box graphic “B”)

### 2. Report Card Text

- “[Component] may reduce the risk of [disease].” “FDA evaluated the scientific evidence and gave it a “B” rating on a scale of...”

### 3. Embedded

- “Promising but not conclusive evidence suggests that [component] may reduce the risk of [disease].”

### 4. Point-Counterpoint

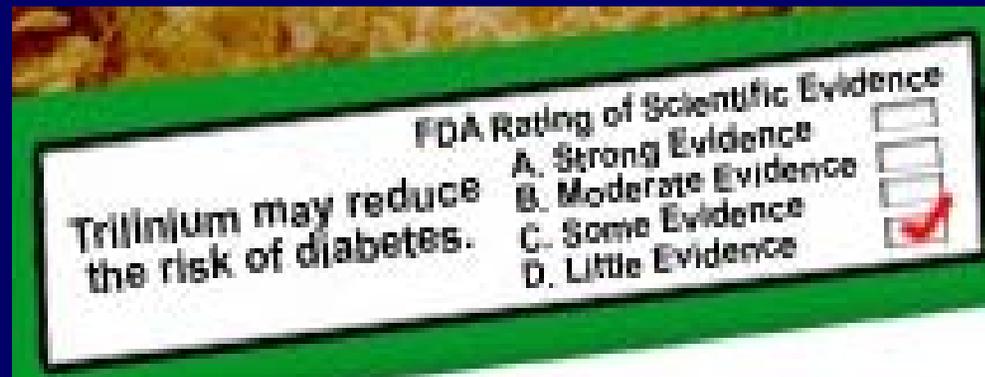
- “[Component] may reduce the risk of [disease].” “The scientific evidence is promising but not conclusive.”

# Proposed FDA 4-levels of Health Claims:

## FDA-IFIC Tested Formats

(examples at "B" level stated below)

### 1. Report Card Graphic



# Proposed FDA 4-levels of Health Claims:

## *FDA-IFIC Tested Formats*

(examples at “B” level stated below)

### 2. Report Card Text

“[Component] may reduce the risk of [disease].”

“FDA evaluated the scientific evidence and gave it a “B” rating, based on a scale of A (strongest evidence) to D (weakest evidence).”



# Proposed FDA 4-levels of Health Claims:

*FDA-IFIC Tested Formats* (examples at “B” level stated below)

## 3. Embedded

- “Promising but not conclusive evidence suggests that [component] may reduce the risk of [disease].”

## 4. Point-Counterpoint

- “[Component] may reduce the risk of [disease].”  
“The scientific evidence is promising but not conclusive.”

# Proposed FDA 4-levels of Health Claims:

*IFIC-only Tested Formats* (not tested by FDA)

## 5. Structure-Function

- *Calcium* helps promote *bone health*.
- *Lycopene* helps maintain *prostate health*.
- *Trilinium* helps maintain a *healthy blood sugar level*.

## 6. Dietary-Guidance Statements

(tested on different products and discussed in future slides)

# Consumer Research Highlights

1. Claim type, claim level, and perceptions of a product and/or awareness of a nutrient collectively impact consumer perceptions.
2. Consumers have difficulty distinguishing among 4 levels of scientific evidence, especially with language-only claims.
3. Consumers can distinguish among 4 levels of science using report card graphic; but with negative consequences observed in consumer perception of product safety, quality, and healthfulness at lower level claims in some instances (report card graphic and text).
4. Consumers rate the scientific evidence and other attributes of a product containing an unqualified claim similar to that of products containing a structure-function claim or dietary guidance statement.

# Consumer perceptions are impacted by:

## 1. Claim Type

- Report card graphic; report card text; point-counterpoint; embedded

## 2. Claim Level

- (A-D)

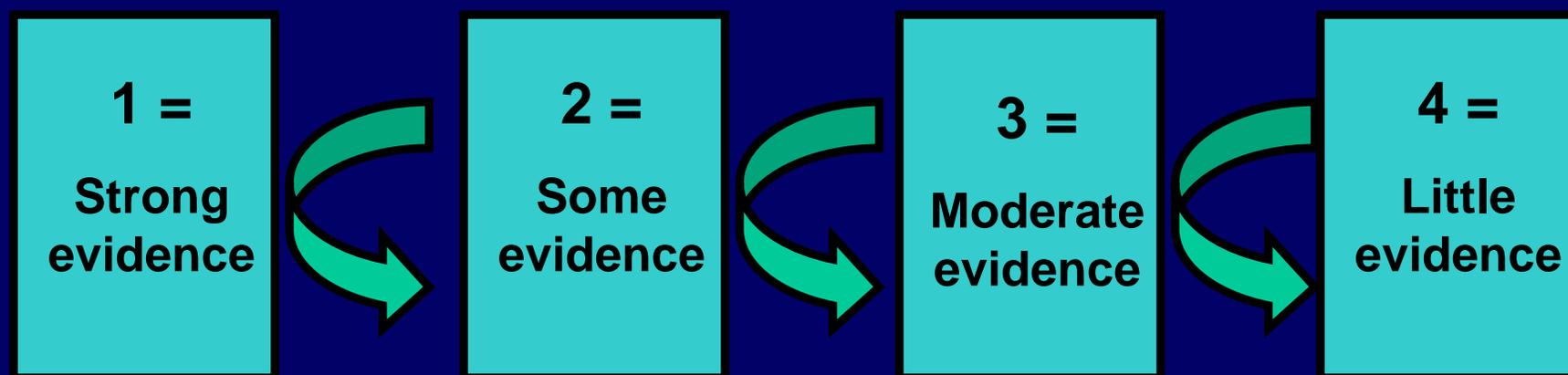
## 3. Perception of Product/Awareness of Nutrient

- Orange juice/calcium; pasta sauce/lycopene; breakfast cereal/trilinium

**Consumers have difficulty distinguishing  
among 4 levels of scientific evidence,  
especially with language-only claims  
(i.e. embedded and point-counterpoint).**

# Card Sort Exercise to Distinguish Strength of Scientific Evidence Among Claims

(embedded and point-counterpoint)



**[Component]  
may reduce  
the risk of  
[disease].**

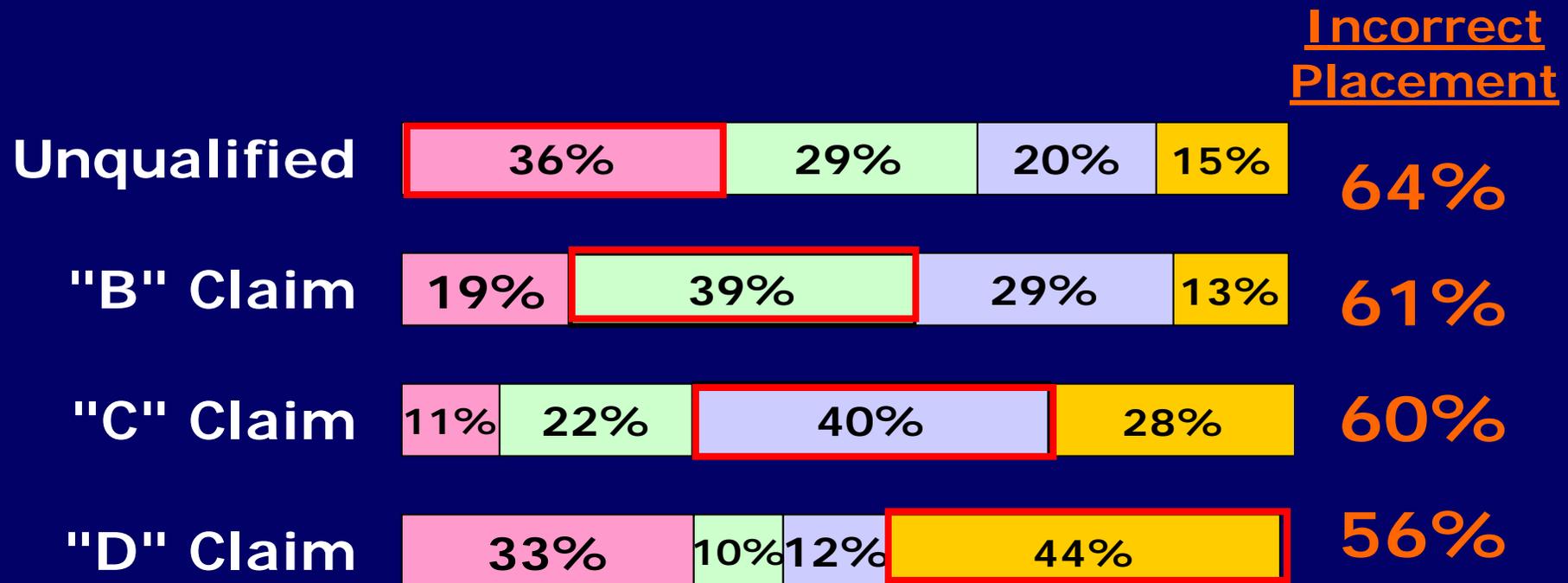
***Promising  
but not  
conclusive***

***Limited and  
not  
conclusive***

***Very limited  
and  
preliminary***

# A majority of consumers incorrectly place claims as to level of scientific evidence.

## RESPONSES GIVEN BY STATEMENT:



■ Strong evidence

■ Moderate evidence

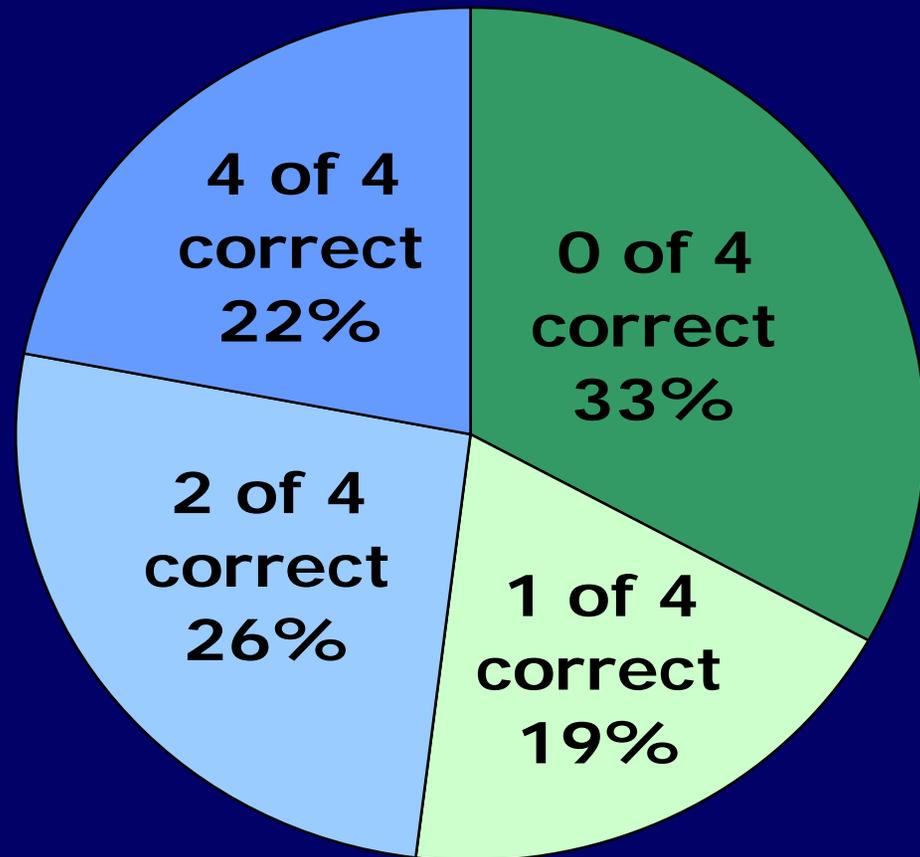
■ Some evidence

■ Little evidence

**78% of consumers cannot correctly sort four levels of claims as to the scientific evidence.**

***Multiple Claim Card Sort Exercise:***

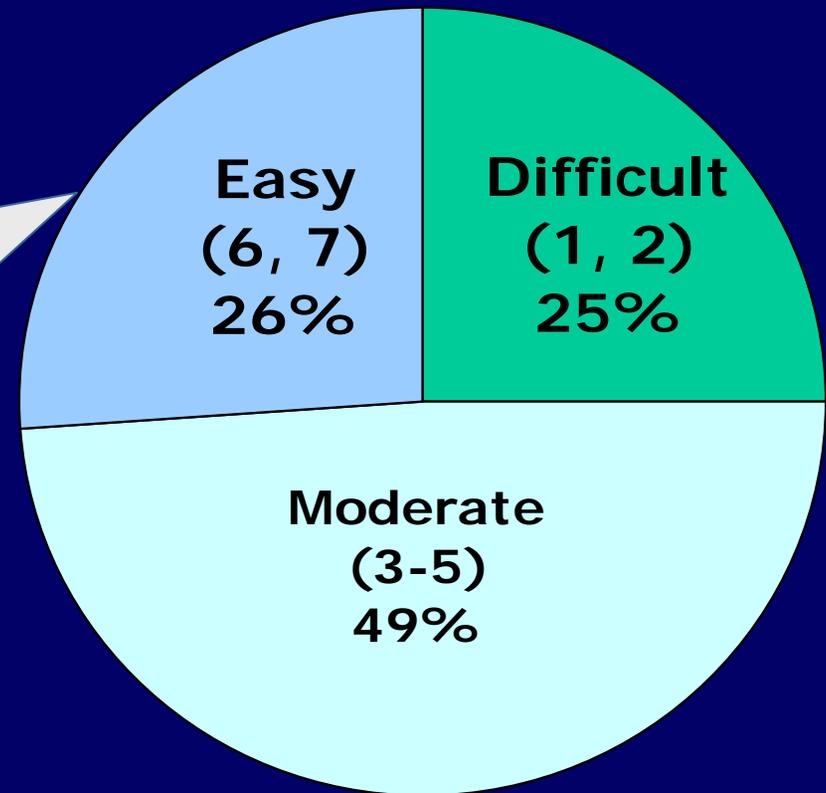
***PROPORTION OF CORRECT RANKING ORDER for Embedded or Point-Counterpoint Claims***



# Only one-fourth of consumers felt it was easy to distinguish among 4 levels of claims.

*Out of those who said it was "Easy":*

<i>0 of 4 correct</i>	<i>28%</i>
<i>1 of 4 correct</i>	<i>16%</i>
<i>2 of 4 correct</i>	<i>23%</i>
<i>4 of 4 correct</i>	<i>32%</i>



Q53. How easy was it for you to distinguish among the four levels of claims in the FDA system?

Scale: 1-2 = *Very difficult to distinguish*

3-5 = *Moderate*

6, 7 = *Very easy to distinguish*

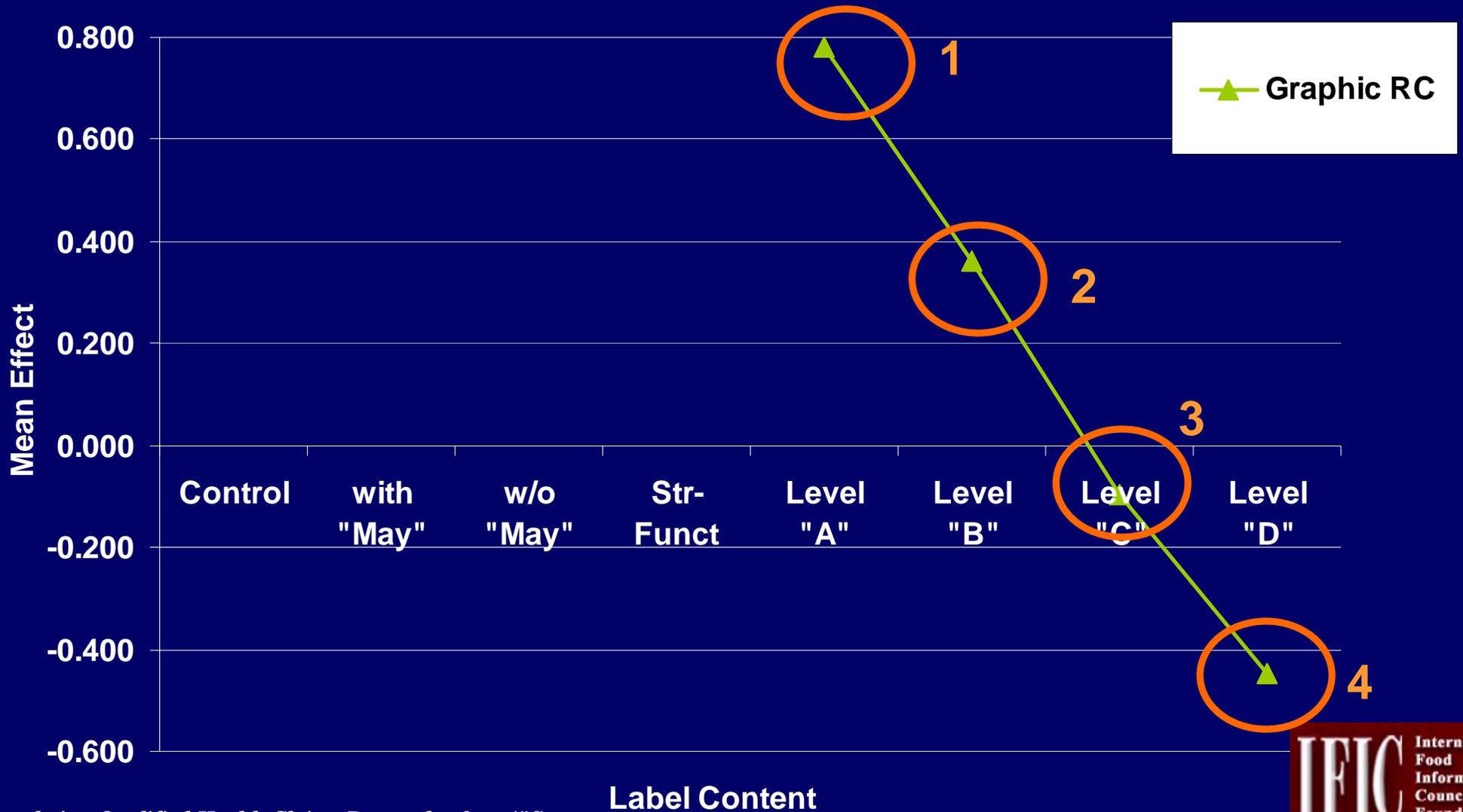
**(n=5642)**

**Consumers can distinguish among 4 levels of science using report card graphic;**

**but with negative consequences observed in consumer perception of product safety, quality, and healthfulness at some lower level claims.**

# Consumers can distinguish among 4 levels of science using Report Card Graphic, but with other negative consequences.

Perception of Scientific Evidence by Label Condition



# Consumers can distinguish only 2 levels within the Report Card Text format (A-B and C-D) and...

Perception of Scientific Evidence by Label Condition



# ...the Point-Counterpoint format (B and C-D).

Perception of Scientific Evidence by Label Condition



# Consumers cannot distinguish among multiple levels using the Embedded format.

Perception of Scientific Evidence by Label Condition

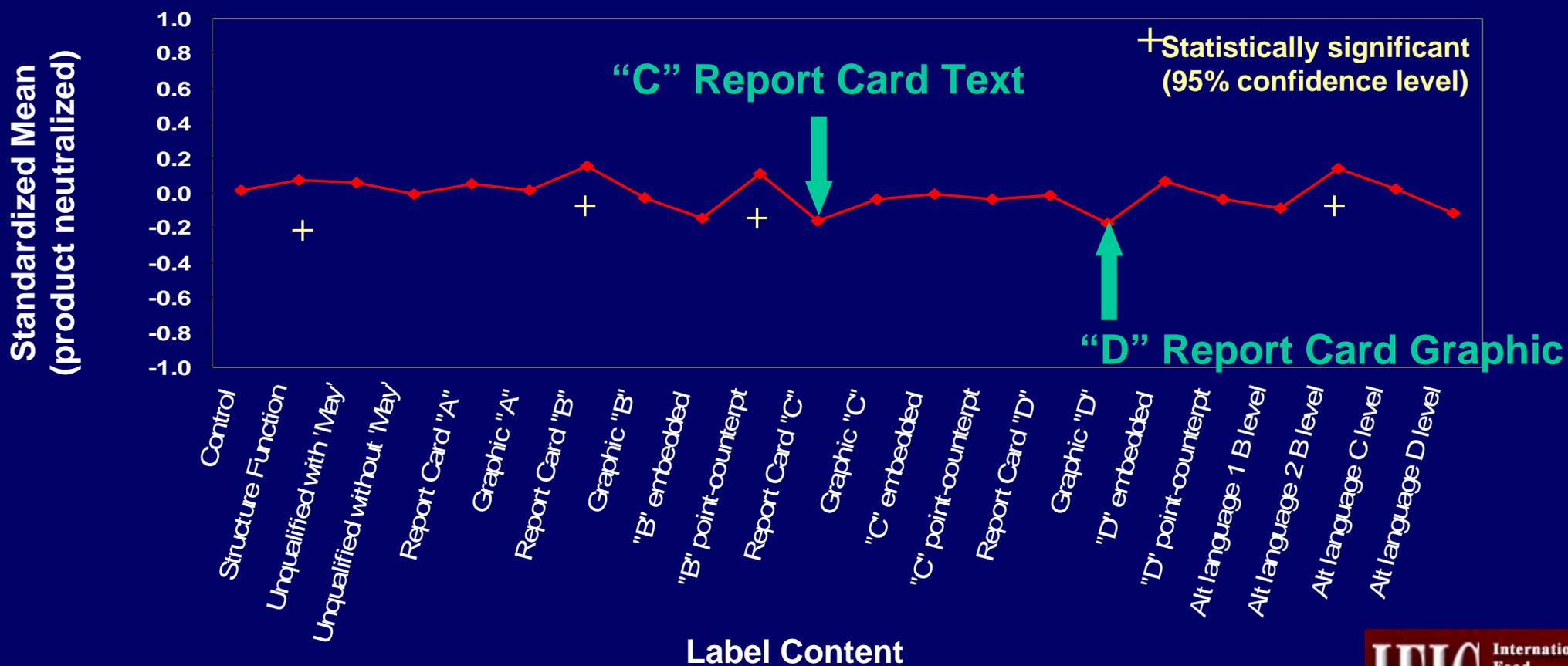


**Consumers can distinguish among 4 levels of science using report card graphic;**

**but with negative consequences observed in consumer perception of product safety, quality, and healthfulness at some lower level claims (report card graphic and text).**

**“C” Report Card Text and D Report Card Graphic convey less healthfulness than Structure-Function and several B claims (Text, Point-Counterpoint, Alt. B2).**

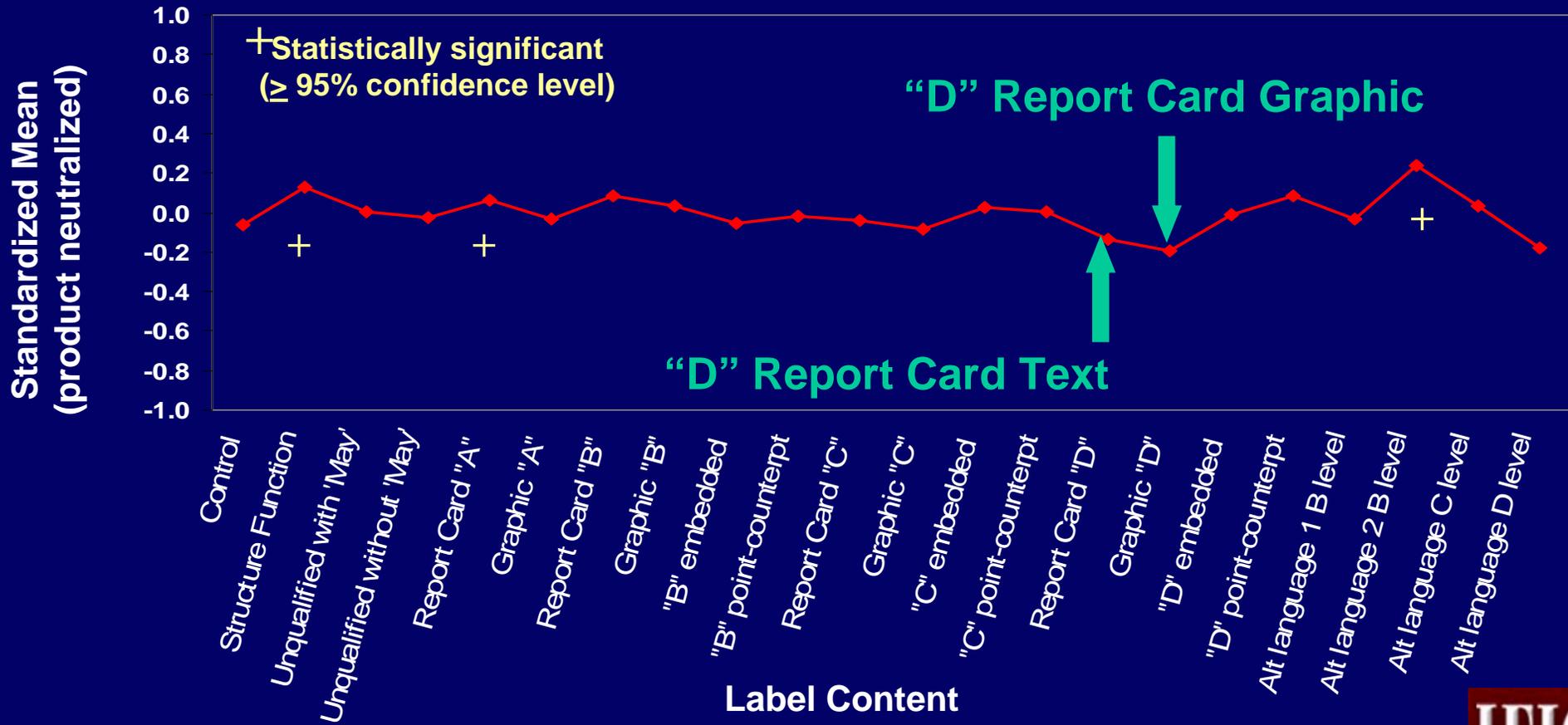
Perception of Healthfulness by Label Condition



“D” Report Card Graphic and Text convey less quality than Structure-Function and Alternative B2 claims.

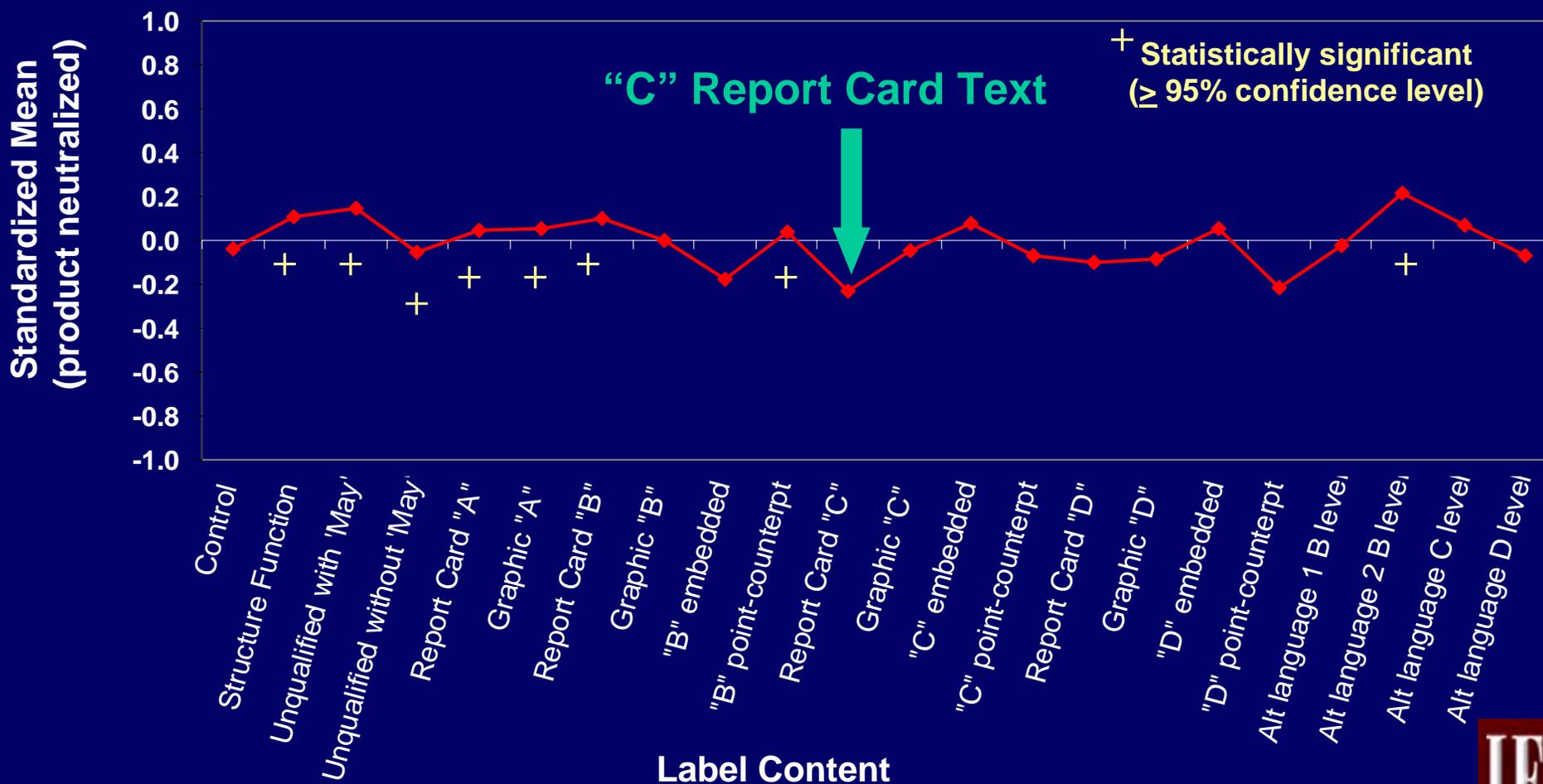
“D” Report Card Graphic also conveys less quality than the Report Card Text A claim.

Perception of Quality by Label Condition



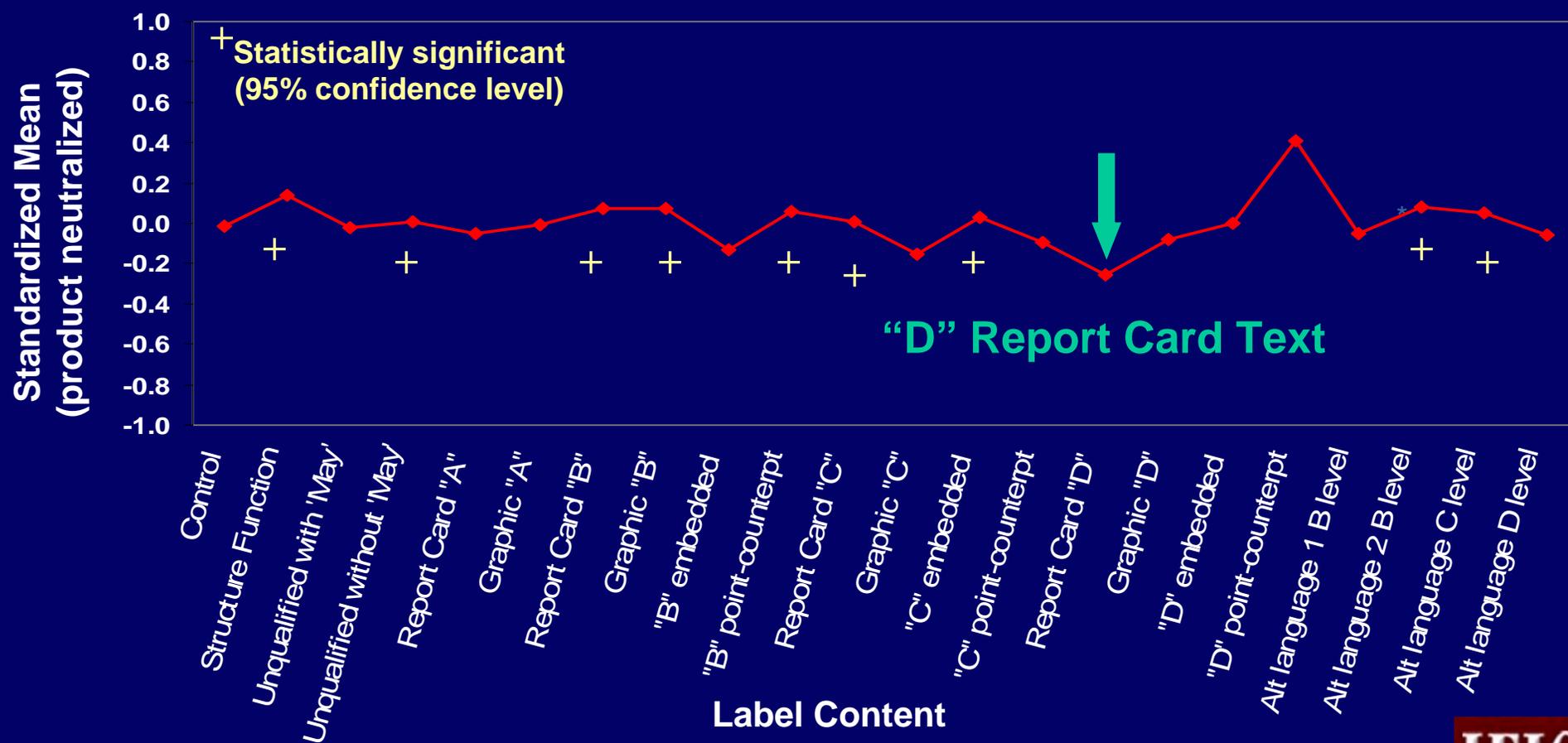
# “C” Report Card Text conveys less safety than Unqualified, Structure-Function, Graphic and Text A, and several B claims (Text, Point-Counterpoint, Alt. B2).

Perception of Safety by Label Condition



Consumers are less likely to purchase a product with a D Report Card Text claim than those who saw a Structure-Function or Unqualified claim (w/out may), and a variety of B and C claims.

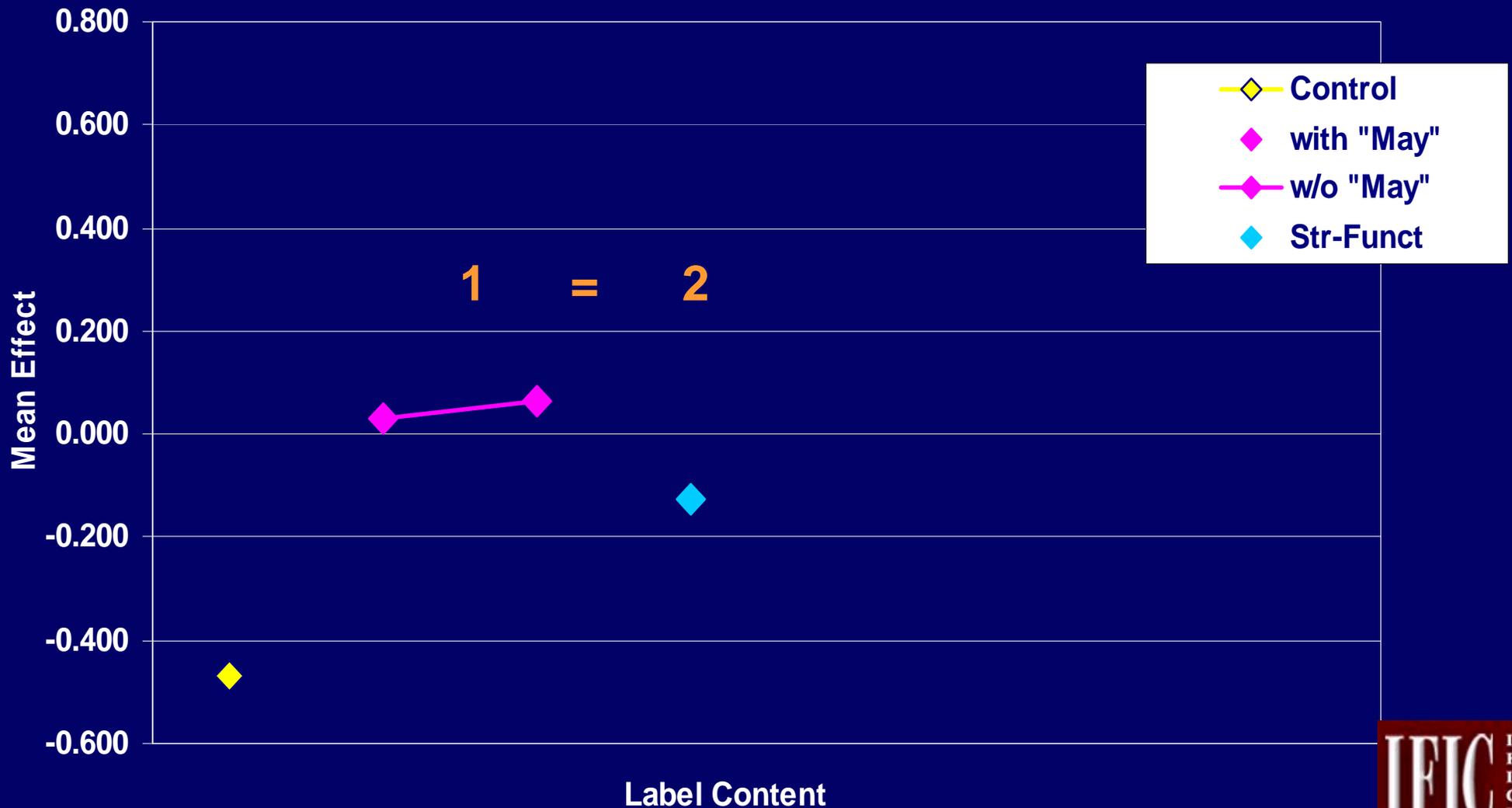
Perception of Purchase Intent by Label Condition



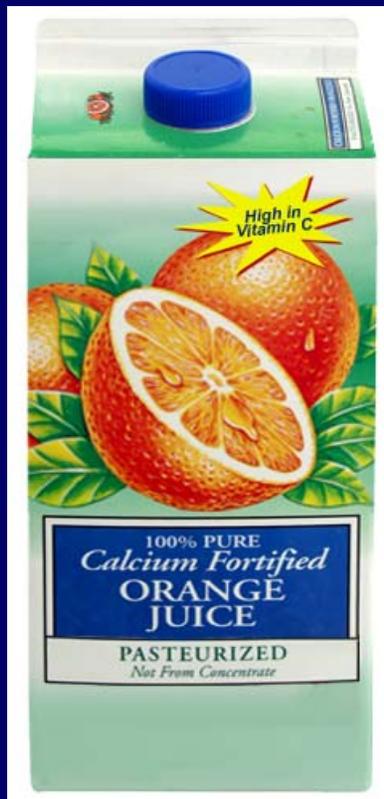
**Consumers rate the scientific evidence and other attributes of a product containing an unqualified claim similar to those products containing a structure-function claim or dietary guidance statement.**

# Unqualified claims (1) rated similar to structure-function claims (2) as to level of scientific evidence.

Perception of Scientific Evidence by Label Condition



# Products Tested



**Orange Juice**  
*Vitamin C &  
Cancer*



**Yogurt**  
*Calcium &  
Osteoporosis*



**Tuna**  
*Omega-3 &  
Heart Disease*

# Dietary Guidance Statements Tested

## Group A (ORANGE JUICE/CANCER/VITAMIN C)

- Statement 1: (Alt. DG) Eat five fruits and vegetables a day for good health.
- Statement 2: (DG) Diets rich in fruits & vegetables may reduce the risk of some types of cancer and other chronic diseases.
- Statement 3: (Alt. DG with product) Diets rich in fruits & vegetables, including orange juice, may reduce the risk of some types of cancer and other chronic diseases.
- Statement 4: (Unqualified Claim) Eating a diet low in fat and rich in fruits and vegetables may reduce the risk of some types of cancer. Orange juice is high in Vitamin C.
- Statement 5: (Alt. Unqualified Claim with product) Vitamin C-rich fruits and vegetables, including orange juice, may reduce the risk of some types of cancer.

# Dietary Guidance Statements Tested

## Group B (YOGURT/OSTEOPOROSIS/CALCIUM)

- Statement 1: (Alt. DG) Eat three servings of dairy foods a day for good bone health.
- Statement 2: (DG) Diets rich in dairy foods may reduce the risk of osteoporosis.
- Statement 3: (Alt. DG with product) Diets rich in dairy foods, including yogurt, may reduce the risk of osteoporosis.
- Statement 4: (Unqualified Claim) A healthy diet with enough calcium may reduce the risk of osteoporosis.
- Statement 5: (Alt. Unqualified Claim with product) Calcium-rich foods, including yogurt, may reduce the risk of osteoporosis.

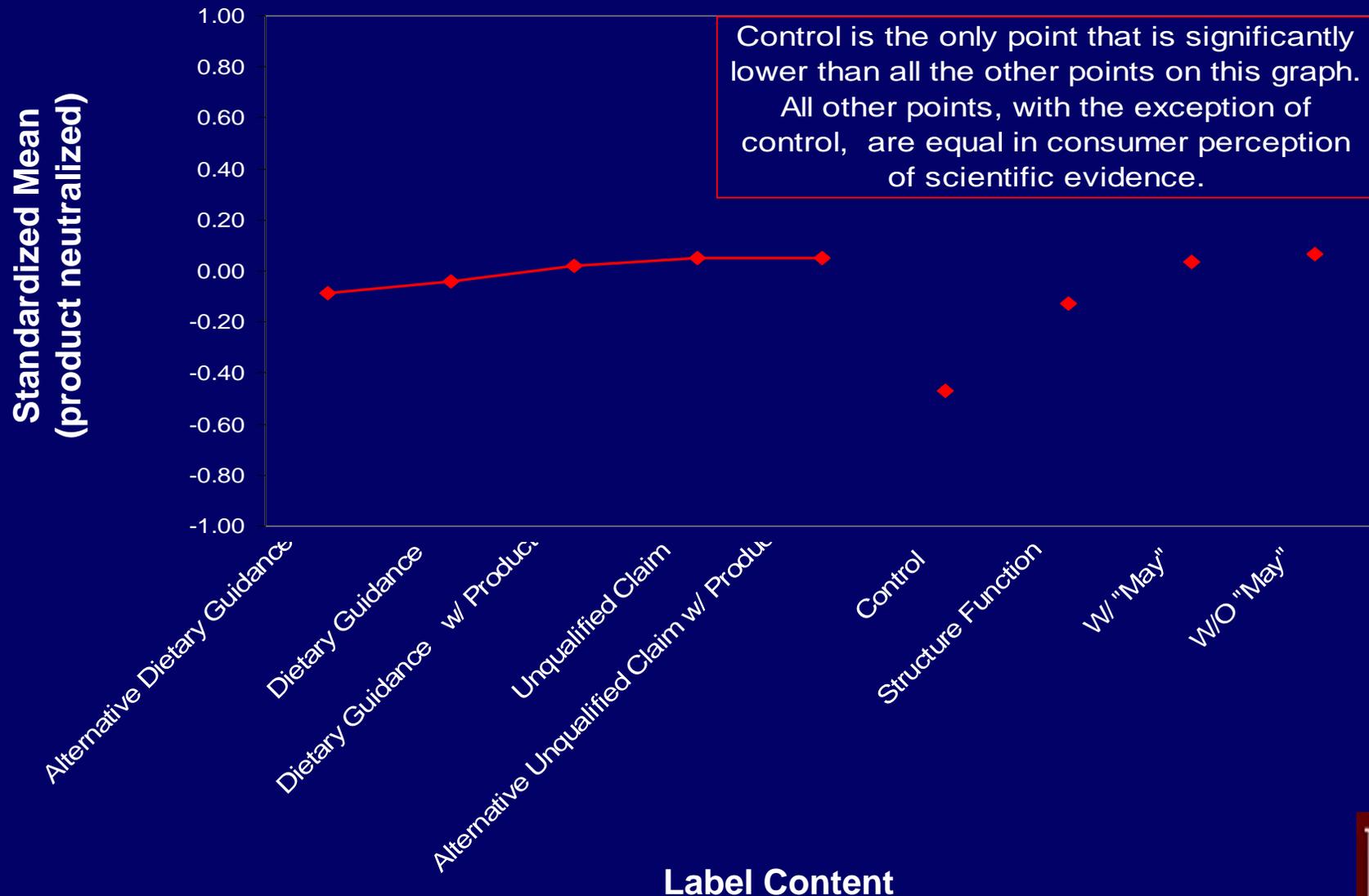
# Dietary Guidance Statements Tested

## Group C (TUNA/HEART DISEASE/OMEGA-3)

- Statement 1: (DG) Eat two servings of fish per week for good heart health.
- Statement 2: (Alt DG) Diets rich in fish may reduce the risk of heart disease.
- Statement 3: (Alt. DG with product) Diets rich in fish, including tuna, may reduce the risk of heart disease.
- Statement 4: (Unqualified Claim) Eating a diet low in fat and rich in omega-3 fatty acids may reduce the risk of heart disease.
- Statement 5: (Alt. Unqualified Claim with product) Omega-3 fatty acid-rich foods, including tuna, may reduce the risk of heart disease.

# Dietary Guidance statements rank as high as both unqualified and structure-function claims for scientific evidence.

## Perception of Scientific Evidence by Label Condition



# In Summary... *Research Highlights*

1. Claim type, claim level, and perceptions of a product and/or awareness of a nutrient collectively impact consumer perceptions.
2. Consumers have difficulty distinguishing among 4 levels of scientific evidence, especially with language-only claims.
3. Consumers can distinguish among 4 levels of science using report card graphic; but with negative consequences observed in consumer perception of product safety, quality, and healthfulness at lower level claims in some instances (report card graphic and text).
4. Consumers rate the scientific evidence and other attributes of a product containing an unqualified claim similar to that of products containing a structure-function claim or dietary guidance statement.

# In Summary... *Consumer Insights*

- **Consumers had difficulty sorting out strength of scientific evidence associated with various claim levels, regardless of claim type.**
  - *May be indicative of consumer desire for simpler language on food and health, as seen in structure-function claims, dietary guidance statements, and alternative language*
- **With unintended effects observed related to safety concerns, quality and healthfulness misperceptions, and purchase intent, emphasis on letter grades steers consumers to quality of product, not just level of science.**
  - *May potentially mislead consumers with regard to both perception and understanding of scientific evidence as well as overall diet choices*

# In Summary... *Consumer Insights*

- Further research could determine:
  1. Ideal number of levels that could increase consumers' ability to distinguish the scientific evidence associated with label claims

**AND**

2. Terminology or language consumers would find most helpful in improving eating behaviors.

**Thank you.**

Further questions:

[reinhardt@ific.org](mailto:reinhardt@ific.org)