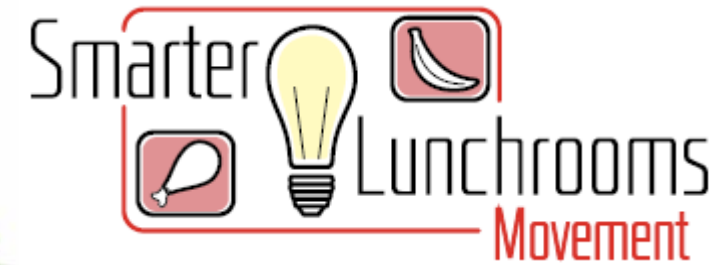


Smarter Lunchrooms- Part 1

Kathryn Hoy, MFN, RD, CDN

Manager, Cornell Center for Behavioral Economics in
Child Nutrition Programs



It's Not Nutrition...
Until It's Eaten!





Who Am I?



Kate Hoy, MFN, RD, CDN
Manager, The B.E.N. Center

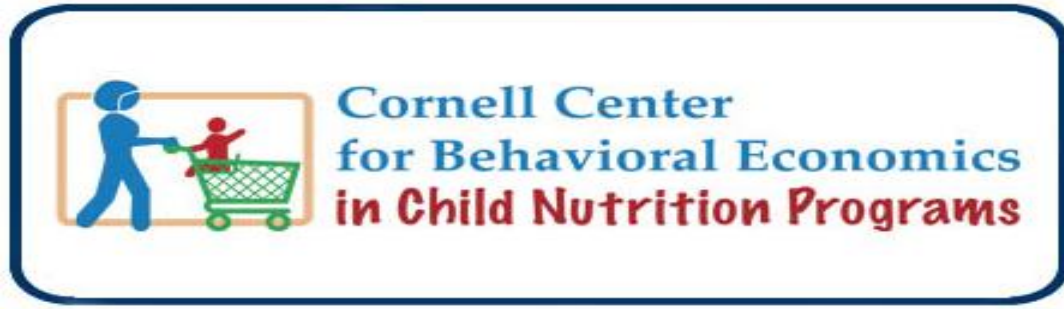


Why should you care?

Agenda

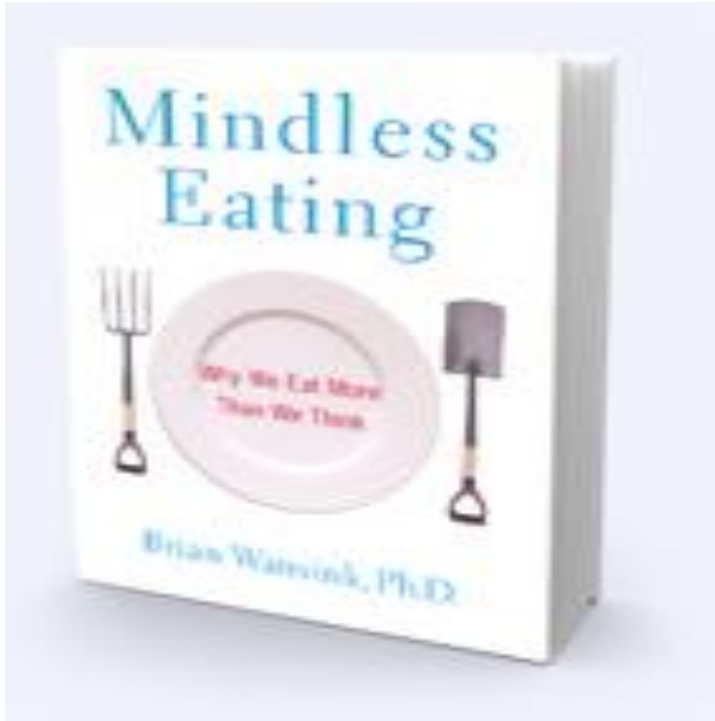
- Intro to Behavioral Economics
- The 6 Principles
- Smarter Lunchrooms Movement
- What do we know?





- Food & Brand Lab
 - Consumer Behavior Research
 - Industry and Government Funded
 - How Do Environmental Cues Impact Food Choices
- The BEN Center
 - School Focused Research & Outreach
 - Changes Schools Can Make to Encourage Healthy Choices
 - The Smarter Lunchroom Movement

Hidden Influences in the daily Diet



Brian Wansink, Ph.D.



- Distractions
 - On average, you will consume 28% more food while eating in front of a computer or TV
- Larger Plate, Larger Meal
 - Using a bigger plate to serve a meal typically results in a 25% increase in the amount of food
- Fat-free?
 - People given low-fat granola ate 35% more than people who thought they were eating regular granola
- Hide the Candy
 - Put that candy dish in your drawer, you'll eat 3 fewer candies per day.



My Word...

Opportunity!



What issues impact the public food environment?

- Rising obesity rates
 - Administrators under pressure to improve quality and nutrition
 - Cut sugared drinks, dessert items, pizza, hot dogs and burgers
 - Various proponents push for more “whole grain”, “vegetarian”, “organic” or “raw”
 - Often, these are not what consumers want
 - Heavy-handed or short-sighted intervention can lead to worse outcomes for consumers and communities



The Challenge

- Improve **nutritional** content of meals
- Maintain **low cost**
- Maintain **participation**
- Encourage longer-term **healthy decisions**
- Informing Stake Holders about what is **REALLY** going on in food programs



Consumer Trilemma

- Pressure to improve the nutrition of meals
- Pressure to keep participation up
- Pressure to balance revenue and cost





What does this mean for me?



Help Balance the Equation!

Choice Architecture

- Choice architecture
 - *Designing the choice* to lead an individual to a particular outcome *without forcing* them
 - Uses the *tools of psychology* to access economic decision-making
- Generally, adjusting the choice architecture is *cheap*
 - *Big bang for the buck*



How Behavioral Economics Helps: Economics & Psychology

- **Reactance**
 - Rebelling against a threat to freedom
 - Limits on ketchup
 - “Don’t press this button”
- **Attribution**
 - It was my choice, I will repeat it in the future
 - Choosing between celery and carrots



What We Know About Food Decisions



- We have two decision-making mechanisms
 - **Deliberative** – Rational
 - **Emotional** – Naïve, knee-jerk reactions
- Which takes over depends on the level of cognitive resources available
 - Stress or distraction leads us to eat more and eat worse
 - It takes effort and resources to resist temptation

Hot vs. Cold Decisions

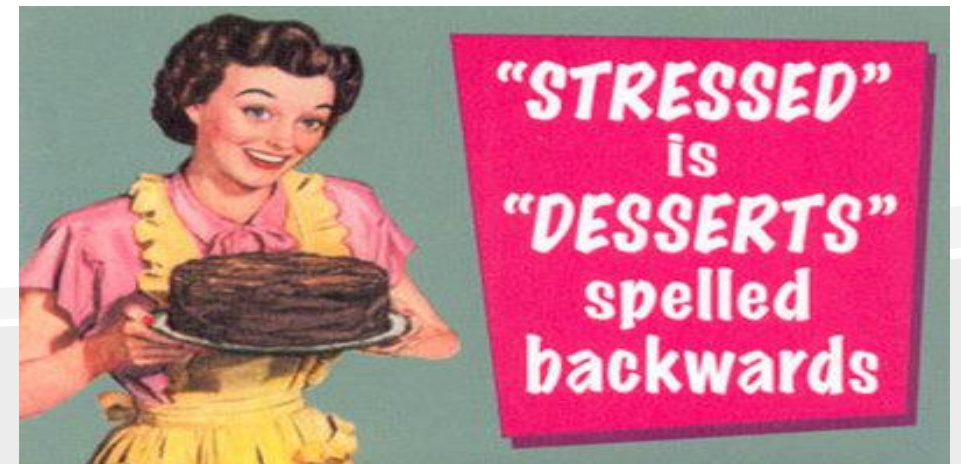


Cold State

- We consider
 - Prices
 - Health information
 - Logic
- We buy
 - Smaller portions
 - Moderate foods

Hot State

- We eat for
 - Taste
 - Convenience
 - Size
 - Visual effect
 - “This decision is an exception”
- We buy
 - Bigger
 - More hedonistic





The 6 Principles





6 Basic Principles to Consider

The following principles are based on research concerning various **environmental cues that influence eating behavior.**

They are true in school lunchrooms as well as in restaurants, food courts, and even in your home kitchen!

Manage
Portion
Sizes

Increase
Convenience

Improve
Visibility

Enhance
Taste
Expectations

Utilize
Suggestive
Selling

Set Smart
Pricing
Strategies

Let's look at each principle separately...

Manage
Portion
Sizes

Increase
Convenience

Improve
Visibility

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Strategies

Use smaller containers, plates, and serving utensils
for foods you wish to limit

Large portions = eating more



Small portions = eating less



Pay attention to the number of servings
per container!

Nutrition Facts	
Serving Size	4 cookies (30g)
Servings Per Container	4
Amount Per Serving	
Calories 220	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 6g	30%
Trans Fat 0.5g	
Cholesterol 10mg	2%
Sodium 70mg	4%
Total Carbohydrates 25g	8%
Dietary Fiber 1g	4%
Sugars 20g	
Protein 3g	



Manage Portion Sizes	Increase Convenience	Improve Visibility	Enhance Taste Expectations	Utilize Suggestive Selling	Set Smart Pricing Strategies
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Serve Smart: Serve yourself only what you want to eat – then put the rest away and out of sight.

Why it works: People will “clean their plate” even after they are full... even when they don't like what they are eating!

Fun science:

**“Crouton Salads”
& Unlimited Dressing**

&

Stale Popcorn Giveaway



Manage
Portion
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Selling

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Strategies

Make healthy foods more convenient.

- * The easier it is to eat a food, the more likely we are to eat it!
- * Make healthy foods easy to get to by putting them on the middle shelves of the pantry and refrigerator, in front.
- * Put indulgent treats at the very top or bottom shelves, in the back.



**Manage
Portion
Sizes**

**Increase
Convenience**

**Improve
Visibility**

**Enhance
Taste
Expectations**

**Utilize
Suggestive
Selling**

**Set Smart
Pricing
Strategies**

Snack Smart: Measure out “snack packs” of healthy snacks for easy grab-and-go snacking – or for breakfast on the go!

Why it works: People will “clean their plate” even after they are full... even when they don't like what they are eating!



Fun science:
The Secretaries' Sweet Toot
&
Chocolate Milk Hide-and-Seek



Manage
Portion
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Out of sight, out of mind.

- * Simply *seeing* a brownie or other high-calorie food can lead to unplanned consumption – we crave it and eat it before we think twice.
- * Conversely, the image or presence of a healthy food option can lead to consumption of healthier foods. In one school, simply moving a salad bar 3 feet to the center of the serving area *tripled* salad sales!



**Manage
Portion
Sizes**

**Increase
Convenience**

**Improve
Visibility**

**Enhance
Taste
Expectations**

**Utilize
Suggestive
Selling**

**Set Smart
Pricing
Strategies**

Snack Smart: Keep healthy foods where you'll see them – at eye level in the pantry and refrigerator – and more indulgent foods in the back and out of sight. Use opaque storage containers for indulgent foods and clear storage containers for healthy snacks.

Why it works: It's easier to avoid temptation when you desire healthy foods instead. Make healthy foods easy to spot!



Fun science:

the Fabulous Fruit Bowl

&

First Foods Are Favorite Foods



Manage
Portion
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If it *looks* delicious and *sounds* delicious... it must **be** delicious!

- * *Food tastes how we **expect** it to taste* – which is why it's such a shame that people are taught to think healthy foods are yucky!
- * Name, appearance, and reputation create our expectations.





Manage Portion Sizes	Increase Convenience	Improve Visibility	Enhance Taste Expectations	Utilize Suggestive Selling	Set Smart Pricing Strategies
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Talk It Up to Spice It Up!: Get kids excited about healthy foods by creating fun, imaginative names such as “X-ray Vision Carrots.” Increase the allure of adult foods by adding appealing details: “tangy smoothie,” “Texas barbecue,” or “crisp garden salad.”

Why it works: It's (almost) all in your head!

Fun science:

**A Wine (or Burrito) by Any
Other Name**

&

Color Counts with Pasta Portions



Manage
Portion
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Say what??

- * Attitudes are contagious! We are influenced by people around us.
- * Signs and verbal prompts influence us to see and desire products.





**Manage
Portion
Sizes**

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Visibility**

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Taste
Expectations**

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Suggestive
Selling**

**Set Smart
Pricing
Strategies**

Make Peer Pressure a Positive Force!: Encouraging others to eat healthy foods will help you reach your own nutritional goals. Order first at restaurants. Don't be afraid to be a leader!

Why it works: Birds of a feather flock together! People often follow the example of those near them, so start a healthy trend!

Fun science:

I'll have What She's Having...

&

Supermarket Smart Carts



Manage
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Money Talks.

- * People like to save money, but it can backfire... many examples of “bundling” result in eating LOTS of unplanned, unnecessary, and even *unwanted* calories.
- * Nutritionally speaking, a Value Meal is a really *bad* deal!





Manage Portion Sizes	Increase Convenience	Improve Visibility	Enhance Taste Expectations	Utilize Suggestive Selling	Set Smart Pricing Strategies
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Make a Bundle with Healthy Bundling: Encourage lunchrooms and restaurants to offer healthy food “bundles” for a discounted price: for example, a salad or sandwich + water + fruit instead of a soda and fries, or one cookie + milk instead of three cookies.

Why it works: A way to save money and feel better? Two, please!

Fun science:

Cash for Cookies



+





National School Lunch Program



What Does This Mean for Kids?



- Ever wonder why kids food is generally less healthy?
- Kids have not fully developed their rational system
 - Very little understanding of long term consequences
 - Developing understanding of the marketplace
 - Almost like a hot state – all the time
 - Reactance to paternalism
- Fortunately, **most kids find some healthy foods to be appealing and acceptable**
 - We can make some foods cool
 - *We can lead them* to make the right choice

Smarter Lunchrooms



- What if we *design* the lunch room to *gently encourage the decisions we want*?
 - Use behavioral theory to *encourage* better choices
 - Some of these changes can be *extremely low cost*
 - This avoids *reactance*
 - Banning certain foods can be self-defeating
 - *Encourages future healthy choices*

Activity: Your Favorite Eating Place

- Think of your favorite place to eat a meal.
- Is it a restaurant? Your mother's Thanksgiving table? A picnic in a sunny park in June? Choose any setting.
- Write your setting in the circle at the center of your paper.



Activity, Part 2



- Now, close your eyes and picture that place.
- How does it look? Smell? Sound?
- How do people act there?
- How do you feel there?
- What is the food like?
- Why do you like it here?
- Write answers on the spokes, adding spokes if you need more space.

Activity, Part 3

- Review the list of reasons why we love our favorite eating spots.
- How many of these words also relate to your lunchroom?
- How many words would you *like* for students and staff members to relate to your lunchroom?



Compare
these two
lunchrooms
Where
would
children
rather eat?



Smarter Lunchroom Best Practice Evaluation & Implementation Guide

	<u>Objective A</u> Increasing the number of Students that select Fruit	<u>Objective B</u> Increasing the number of Students that select Vegetables	<u>Objective C</u> Increasing the number of Students that select White Milk	<u>Objective D</u> Increasing the number of Students that select Targeted Entrée	<u>Objective E</u> Increasing the number of Students that select Reimbursable Meals
A	Display Fruit on all lunch lines in 2 locations. 1 location should be near the register ¹ .	Give Vegetables creative/descriptive names and display names next to or with Vegetables on the line	Place White Milk first in the lunchroom coolers, in front of sugar added beverages.	Make the Entrée with the greatest nutrient density the first or most prominent in the lunch line.	Place components of RM at snack window ³ Add an RM “grab and go” ⁴ bag to the window.
<u>Action Items</u> B	Display whole Fruit in a bowl or basket instead of a stainless steel bin or tray.	Display the age targeted creative/descriptive names on posters or menu boards outside the cafeteria.	Place White Milk in every cooler in the lunchroom	Give the Entrée an age targeted creative/descriptive name and display it with the Targeted Entrée .	Move all “competitive snack foods” (chips, cookies, etc) behind the serving counter in the regular lunch line so they are available by request only.
C	Employ signs and verbal prompts to draw attention to and encourage kids to buy Fruit .	Create a student SNAC ² committee of responsible for the naming of and signage for Vegetables .	Make sure White Milk accounts for at least 1/3 of all the Milk displayed in lunchroom coolers.	Display the new and creative/descriptive name on a placard or menu board outside the cafeteria. (SNAC Committee)	Create a “healthy items” ⁵ only convenience line ⁶ stocked with all types of milk, fruits, veggies grab & go sandwiches & the lowest fat/lowest sodium Entrée items.



The Name Game

- Use cool or appealing labels to describe foods
- Carrots → X-Ray Vision Carrots → *Doubled* the consumption of carrots
- Bean Burrito → Big Bad Bean Burrito → Increased burrito consumption by *more than 40%*! (It could have been more, but they *sold out* in the second of three lunch periods!)



Why not “Extreme Yogurt”, “Mega-Milk” “Champion Cheese” & “High Flyin’ Flat Bread”



Give 'em a Choice!



This?

- People report being more satisfied with an option if they have chosen it than if it is forced on them, even when the default option is the what they would have chosen anyway!
- Kids given a choice between carrots and celery *ATE* 91% of the vegetable taken vs. 69% when carrots alone were offered.

Or This?



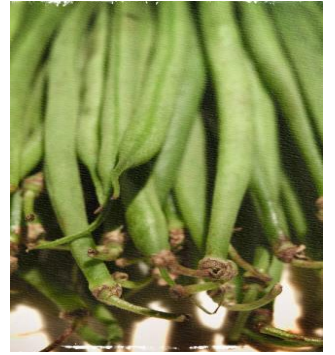
Give Milk the Edge

- Rearranging the coolers to highlight white milk resulted in an increased rate of purchase by approximately 46%
- Removal of flavored milks in lunchroom caused daily milk sales to decrease nearly 11%





Trigger Foods



- On days when green beans & bananas were on the hot lunch line:
 - Students did NOT take fruits/vegetables were 6% less likely to take a cookie & 11% less likely to take an ice cream
- On days when applesauce & fruit cocktail were on the hot lunch line:
 - The same students were 6% more likely to choose a Little Debbie snack and 15% more likely to choose chips/Slim Jims etc.



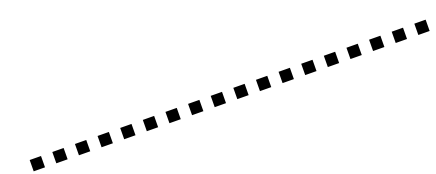
Increase Variety of Healthful Foods

- Increase the variety of more healthy a la carte items
- Decrease the variety of less healthy selections
 - Ex.: pre-cut vegetables and health bars rather than chips and cookies
- Integrate whole grain options into food items (ex.: pizza with corn or whole wheat flour)
- Changes to school lunch foods should be made **gradually** (Ideally, over the summer or in increments)

ADD THESE



Increase Convenience of Healthier Foods



Hot Lunch
Line

Daily Salad Sales
increased 200-300%
within two weeks

New Location for
Salad Bar



Old
Location
for Salad
Bar

Cash
Register #1

Cash
Register
#2

Op-Chart

BRIAN WANSINK,
DAVID R. JUST
and JOE MCKENDRY

Lunch Line Redesign

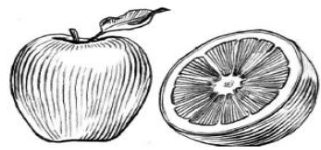
School cafeterias are much criticized for offering the kind of snack foods and desserts that contribute to childhood obesity. But banning junk food from cafeterias, as some schools have tried, or serving only escarole or tofu, can backfire. Students then skip lunch, bring in their own snacks or head out for fast food. We've even seen some pizzas delivered to a side door.

Children and teenagers resist heavy-handed nutritional policies — and the food that is associated with the heavy hand. No food is nutritious, after all, until it is actually eaten.

A smarter lunchroom wouldn't be draconian. Rather, it would nudge students toward making better choices on their own by changing the way their options are presented. One school we have observed in upstate New York, for instance, tripled the number of salads students bought simply by moving the salad bar away from the wall and placing it in front of the cash registers.

Experiments that we and other researchers have done in cafeterias at high schools, middle schools and summer camp programs, as well as in laboratories, have revealed many ways to use behavioral psychology to coax children to eat better. Here are a dozen such strategies that work without requiring drastic or expensive changes in school menus.

Putting apples and oranges in a fruit bowl, rather than a stainless steel pan, more than doubled fruit sales.



Placing nutritious foods like broccoli at the beginning of the lunch line, rather than in the middle, increased the amount students purchased by 10 percent to 15 percent.



Decreasing the size of bowls from 18 ounces to 14 ounces reduced the size of the average cereal serving at breakfast by 24 percent.

Moving the chocolate milk behind the plain milk led students to buy more plain milk.

Pulling the salad bar away from the wall and putting it in front of the checkout register nearly tripled sales of salads.

A "cash for cookies" policy — that is, forbidding the use of lunch tickets for desserts — led students to buy 71 percent more fruit and 55 percent fewer desserts.



Giving healthy food choices more descriptive names — for example, "creamy corn" rather than "corn" — increased their sales by 27 percent.

Students given a choice between carrots and celery were much more likely to eat their vegetables than students forced to take only carrots.



Keeping ice cream in a freezer with a closed opaque top significantly reduced ice cream sales.

When cafeteria workers asked each child, "Do you want a salad?" salad sales increased by a third.

Creating a speedy "healthy express" checkout line for students who were not buying desserts and chips doubled the sales of healthy sandwiches.

ONTANKE • DISCOUNT • UDVALG

2 PAKKER
FRIT VALG
**KELLOGG'S
MORGENMAD**
FLERE VARIANTER
2 X 200-600 G

40.-
SPAR OP TIL 29,90

rihed
til at Vælge

ONTANKE • DISCOUNT • UDVALG

2 POSER
FRIT VALG
COOP PASTA

FLERE VARIANTER
2 X 500-1000 G

16.-
SPAR OP TIL 15,90

priser
-hver dag

x-tra

ONTANKE • DISCOUNT • UDVALG

2 STK.
FRIT VALG
KIMS CHIPS

FLERE VARIANTER
2 X 100-200 G

35.-

rihed
til at Vælge

ONTANKE • DISCOUNT • UDVALG

39.-

Bland selv slik
hver fredag, lørdag og søndag

100 G
8,-

Slik

FAKE KONDI

RED BULL
25 CL
16,65







What do we know?

- Impact of age on food preference begins in womb
 - Breastfeeding mothers w/regular fruit & vegetable consumption have infants more interested in these foods
- Peak years for picky/fussy eating is between 2-6yo
- Complementary foods introduced to infants & range provided strongly determines food variety throughout life
- Various aspects influence consumption for kids:
 - Aging
 - Genetic
 - Parental Behavior
 - Environment
 - Exposure to education

Agents of Change

- Parent or Adult Caregivers & their role in food behavior
 - Only 17% of intervention studies reported improvement in child OW status d/t parent support
- Change from “support” role to “model”
 - PAC model behavior improved weight management even 2-5yrs post



Plating Preferences



- Adults prefer 3 items and 3 different colors on their plates
- Adults place entrees centrally
- Both like some “white” space

- Children prefer 6 different colors & the max number of items!
- Entrée lower right on round plates



The Power of Variety

- 77% increase in consumption of food w/ perceived variety
 - Actual different items
 - Combinations of items



What would Batman eat?

- Priming
 - The incidental activation of a knowledge structure
 - Can influence behavioral processes i.e. – eating!
- What would ... eat?
 - 45% of kids select healthier alternative
 - Children only showed this effect only for admirable models



Branding Healthful Foods

- Kids provided lunch & then asked if they wanted a cookie or apple in addition
 - When apples had sticker it **doubled** taking & consumption
 - When cookies had sticker...no effect
 - No effect seen when sticker was of unknown icon



Novelty Counts

- Making healthful snacks or lunches multi-dimensional/educational and unique increases satiety and & selection frequency

<http://youtu.be/1aPtukoKoNo>



- Can increase consumption of healthful snacks by up to 20%

Learn More!



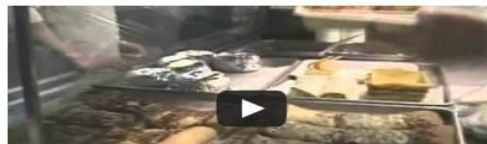
The Smarter Lunchroom Movement is brought to you by the Cornell Center for Behavioral Economics in Child Nutrition Program and is funded by the USDA ERS/FNS

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Lunch Line Redesign

A smarter lunchroom wouldn't be draconian. Rather, it would nudge students toward making better choices on their own by changing the way their options are presented.

Lunch'd: Part One



Three Easy Actions



Create a healthy-items-only convenience line or window stocked with all types of healthy foods: milk, fruits, veggies, premade sandwiches and salads, and lowest-fat/lowest-sodium entrée items.

About Our Work



School nutrition: A kid's right to choose
Los Angeles Times, February 3, 2012



Some U.S. lunchrooms to get cheap makeover
UPI.com, September 29, 2011



Interview with Dr. Brian Wansink, Master of Lunchroom Trickery
The Lunch Tray, March 31, 2011



Smarter Lunchrooms Lead Kids to Eat More Salad
ScienceDaily, April 27, 2010

[MORE NEWS](#)

www.SmarterLunchrooms.org

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Smarter Lunchroom
Movement



THANK YOU!

The Smarter Lunchrooms Movement and the BEN Center

- www.SmarterLunchrooms.org
- BEN@cornell.edu
- @SmartLunchrooms (Twitter)
- **Cornell University Food and Brand Lab:**
- **Director:** Dr. Brian Wansink, wansink@cornell.edu
- **Deputy Director:** Adam Brumberg, ab697@cornell.edu
- **The BEN Center:**
- **Co-Director:** Dr. David Just, drj3@cornell.edu
- **BEN Center Manager :** Kathryn Hoy MFN, RD, CDN kih7@cornell.edu

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