



## Helping lower income parents reduce the risk of food waste resulting from children's aversion to healthier food options: Comment on Daniel (2016)



Paul M. Connell<sup>a,\*</sup>, Stacey R. Finkelstein<sup>b</sup>, Maura L. Scott<sup>c</sup>, Beth Vallen<sup>d</sup>

<sup>a</sup> Stony Brook University, United States

<sup>b</sup> Baruch College, City University of New York, United States

<sup>c</sup> Florida State University, United States

<sup>d</sup> Villanova University, United States

### ARTICLE INFO

#### Article history:

Received 30 November 2015

Accepted 3 December 2015

Available online 9 December 2015

#### Keywords:

Food choice  
Taste formation  
Food cost  
Poverty  
Family  
Waste  
Obesity

### ABSTRACT

We reflect on Daniel's (2016) finding that a challenge to improving the diets of lower income children is parental worry over food waste that results from children's rejection of healthier food options such as vegetables. This finding has important implications because previous research has indicated novel foods that have a bitter or sour flavor profile (as is the case with many vegetables) must be introduced to children several times before these foods are accepted. We suggest research-based techniques that parents could utilize to reduce the risk of costly food waste, and discuss obstacles that could impede well-intended parents from reaching their goals of improving their children's diets.

© 2015 Elsevier Ltd. All rights reserved.

A large body of research asserts that the cost of healthful foods is high relative to options that are high in sugar, fat, and salt, thereby increasing the difficulty of maintaining a healthy diet for lower income families in particular (e.g., [Drewnowski, 2010](#)). Recent reports have challenged these findings, suggesting that individuals can eat healthfully on a budget with careful planning ([Carlson and Frazao, 2012](#)). However, this position fails to account for non-income based obstacles that lower income families may face, including the limited availability of grocery stores that sell fruits and vegetables ([Hendrickson et al., 2006](#)), high density of fast-food restaurants in lower income areas ([Grier and Davis, 2013](#)), and, as [Daniel \(2016\)](#) finds, parental anxiety over their children's rejection of healthy foods such as vegetables. As [Daniel \(2016\)](#) states, food that goes uneaten by children is costly to parents; oftentimes these items are wasted and must then be substituted with options that children will accept.

[Daniel's \(2016\)](#) research builds on previous findings

demonstrating that healthy options—such as vegetables—are often an acquired taste, with liking requiring repeated exposure due to their relatively bitter flavor profile ([Benton, 2004](#); [Birch, 1999](#); [Wertz and Wynn, 2014](#)). Recent research supports this notion, finding that merely thinking about consuming vegetables is effortful, even in adulthood ([Trump et al., 2015](#)). Given [Daniel's \(2016\)](#) finding that the risk of food waste hinders the ability and/or willingness of lower income parents to repeatedly offer less preferred healthy foods, an outstanding issue is how to ensure that children are exposed to these options so that preferences for healthy—but perhaps immediately less preferred—options are established. Building upon research that explores the mechanisms that influence attitudes, attitude change, and consumption, in this commentary we reflect on the findings of [Daniel \(2016\)](#) by identifying avenues that families operating on limited budgets can utilize to improve children's attitudes toward and consumption of fruits and vegetables, thereby facilitating repeated exposures while reducing the risk of food waste. We mindfully note in our commentary that lower income parents, in particular, may face obstacles in trying to improve their children's diets. Notably, managing children's food consumption is an effortful process that requires (and taxes) parental ability to engage in self-control; thus, we also

\* Corresponding author. College of Business, Stony Brook University, Stony Brook, NY, 11794, United States.

E-mail address: [paul.connell@stonybrook.edu](mailto:paul.connell@stonybrook.edu) (P.M. Connell).

provide suggestions for helping parents persist in these important efforts.

## 1. Risk reduction

### 1.1. Gradual introduction of riskier options

A key finding in Daniel's (2016) research is that lower income parents tend to be risk-averse when introducing their children to novel foods out of fear of waste. We propose that parents can reduce this risk by taking incremental steps on a "risk ladder," beginning with fruits that are sweeter, then moving to vegetables that have a progressively bitter flavor profile. Previous research has found that young children prefer sweet and salty flavors over sour and bitter ones (Birch and Fisher, 1998). Indeed, even adults share this preference (Birch, 1999), which appears to be innate as nonhuman primates also exhibit a taste for sweeter foods (Remis, 2002). We propose that using a "risk ladder" strategy could ease children into the bitter flavor associated with many vegetables, just as parents in countries where spicy foods are commonly eaten gradually and incrementally introduce their children to these flavors (Rozin et al., 1982). However, such an approach relies on parental knowledge regarding which items are likely to carry the least risk. Policymakers could assist parents with educational tools. One option could be a science-based "risk ladder" document, similar to the United States Department of Agriculture's food pyramid. The risk ladder could begin with low risk options such as apples and bananas, move on to sweeter vegetables like carrots, beets, and peas, and finally, as children adopt these less risky options, move them into riskier options such as broccoli and cauliflower.

### 1.2. Positive emotions through investment in labor

Because eating foods that one does not like is effortful, doing so could lead to negative emotions associated with consuming the food (Muraven and Baumeister, 2000). However, recent research has indicated that invested labor, such as cooking or growing one's own vegetables, can lead to strong emotional attachment to the resulting product (Norton et al., 2012). Supporting this assertion, children that have participated in community-based programs display enjoyment in growing, preparing, and consuming the produce they grow (Heim et al., 2009). If children enjoy activities associated with growing and/or preparing vegetables, then the associations with these foods could transform from negative to positive (Kim et al., 1998).

Thus, parents could increase their children's involvement with cooking and/or growing vegetables. Children could be given safe and simple tasks in the kitchen to aid in preparation (e.g., tearing up lettuce leaves for salads). If families lack access to land for gardening, many vegetables can be easily grown in containers and a small investment in clay or plastic pots and seeds or seedlings can yield good dividends at harvest time. However, a home gardening approach necessitates parental access to and investment in growing materials, which may be difficult for parents struggling to feed their children and who may have limited contact with appropriate retailers. Perhaps policymakers could allow seed and seedling purchases with food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP), with online or catalog options for those families who may not have a nursery nearby.

### 1.3. Using preparation techniques to increase liking

One strategy to help parents experience lower risk of wasted

foods is to find healthy foods that can be prepared in a way that engages the child in creating a desirable finished product. Social learning is a crucial aspect of how children build associations with foods and can influence consumption (Bandura, 1977; Savage et al., 2007). Involving the child early and actively in the preparation of the food may result in a favorable bias toward the food and increase consumption (Dovey et al., 2008; Troye and Supphellen, 2012).

Aspects of how the food is prepared can influence consumption. For example, cuteness can increase consumption; parents could use cookie cutters to cut fruit, vegetables, and sandwiches into cute shapes to increase consumption of healthy foods (e.g., cucumbers in flower shapes, Nenkov and Scott, 2014). Parents can reduce the energy density of popular children's foods (e.g., macaroni and cheese) by incorporating vegetables into the recipe (Rolls et al., 2005). However, if children do not understand that embedded vegetables are part of the recipe, then a child may not easily distinguish between the homemade food with hidden vegetables and food outside of the home without vegetables. Therefore, a more promising educational approach may be for parents to consider embedding vegetables visibly into the food (e.g., incorporating visible broccoli pieces instead of blending hidden cauliflower into macaroni and cheese) to build favorable associations with vegetables. Parents can also adopt innovative approaches to conveniently make healthy foods seem more indulgent, such as freezing and blending bananas to create an "ice cream" snack.

### 1.4. Using presentation to change preferences

An important aspect of Daniel's (2016) research was the finding that lower income parents are often faced with purchasing calorie dense, nutrient poor foods because it is what children enjoy eating. However, previous research has indicated that how an item is presented can influence attitudes and consumption (Scott et al., 2008; Wansink, 2004). Therefore, parents influence the presentation of the food to reshape what the children like. For instance, a recent campaign to increase baby carrot consumption uses tactics typically used for fast food, challenging people to "eat 'em like junk food" (CBS News, 2013). Parents might present food to a child using cute utensils (Nenkov and Scott, 2014) or could give vegetables cute and desirable names to increase consumption, as the names of products and whether they are framed as healthy or not have been shown to influence the perceived tastiness and consumption rates (Finkelstein and Fishbach, 2010; Irmak et al., 2011; Wansink et al., 2005). Presenting the child with healthy foods early on, particularly when paired with an expression of parental liking for the item, can increase consideration and liking by the child (Casey and Rozin, 1989). By making such vegetable consumption experiences positive on a repeated basis, parents may help create an attachment to these foods, which may persist with the child throughout life (Connell et al., 2014).

## 2. Helping parents overcome their own limitations

### 2.1. Parental self-control

As Daniel (2016) attests, healthier meals are more expensive, take time, and are more likely to be resisted by children than known and preferred foods. Self-regulation is defined as the ability and motivation to engage in effortful control over behavior (e.g., promoting healthy eating behaviors despite the associated costs). Self-regulation is characterized as a limited resource, depleted by use as when inhibiting emotional responses (Vohs and Heatherton, 2000), making decisions (Vohs et al., 2008), and resisting unpleasant feelings (Trump et al., 2015). People are more likely to be depleted later versus earlier in the day, and this can influence their

Download English Version:

<https://daneshyari.com/en/article/7330701>

Download Persian Version:

<https://daneshyari.com/article/7330701>

[Daneshyari.com](https://daneshyari.com)