

Do the calories actually matter?

Laura de Beer

L.debeer_1@uvt.nl

Original paper:

“Child and adolescent fast-food choice and the influence of calorie labeling: a natural experiment”.

Reference for the original paper:

Elbel, B., Gyamfi, J., & Kersh, R. (2011). Child and adolescent fast-food choice and the influence of calorie labeling: a natural experiment. *International Journal of Obesity*, 35(4), 493-500. <https://doi.org/10.1038/ijo.2011.4>

Link to original paper online:

<https://www.nature.com/articles/ijo20114>

Project created for the class:
Visual Thinking and Composition, Winter 2020
Tilburg University, Department of Communication and Cognition

Instructor: Neil Cohn, neilcohn@visuallanguagelab.com, www.visuallanguagelab.com

Summary “Child and adolescent fast-food choice and the influence of calorie labeling: a natural experiment” (Elbel, Gyamfi & Kersh, 2011).

In fear of an ‘Obesity Epidemic’, calorie labeling became mandatory nationwide in 2010 due to the “Patient Protection and Affordable Care Act” (ACA). New York City and several other cities in the United States had already introduced calorie labeling in 2008. The aim was to help customers make healthier food choices. Unhealthy food practices and limited physical activity are said to be significant causes for the recent increases in childhood obesity. Fast food has been linked to the increase in obesity rates among children and adolescents.

Few studies have been conducted regarding calorie labeling. Some experimental studies among adolescents find that information about calories and nutrition is not a major consideration in food choices. Other factors like taste e.g. seem more important. However, one study found that in a hypothetical choice scenario, parents of children between the age of 3 and 6 indicated that they would purchase less calories, would they be informed of calories.

The current study was designed to examine whether calorie labeling helps to inform and enhance food choices and shed light on these choices. The sample size was small. The researcher used a pre-/post-design in this natural experiment to gather data of parents ordering food for their children, as well as adolescents ordering food for themselves. The data was gathered at a group of fast-food restaurants in NYC and in the comparison city Newark, before and after they begun the calorie labeling. The focus was on low-income, racially and ethnically diverse people, because they have a higher rate of obesity and health problems.

Methods

New York City and Newark, NJ were compared as regards to adolescent and parent food choices. The restaurants surveyed were representing the largest chains located in NYC and Newark: McDonald’s, Burger King, Wendy’s and Kentucky Fried Chicken. The following population-level characteristics were used to align restaurants/neighborhoods: population size, age, race/ethnicity, poverty level, obesity rates and diabetes rates. The restaurant sample included 5 restaurants in Newark and 14 in New York City. In NYC, the data was collected in the lower-income areas: South Bronx, central Brooklyn, Harlem and Washington Heights in Manhattan, and the Rockaways in Queens.

For two weeks – before NYC did calorie labeling – people who visited selected restaurants on selected times and selected days, were asked to bring their receipts back and fill in a survey for a compensation of \$2. Anyone above the age of 13 was eligible to participate. 4 weeks after NYC started with calorie labeling, data was collected from the same restaurants, using the same methodology.

The fast-food receipts were used to calculate, for each item purchased and for the whole order, information about calories, saturated fat, sodium and sugar. A short survey was conducted with questions about age, race and sex. The survey also asked whether the participant noticed the calorie information. If so, they were asked if they were influenced by that information in making their food choice. Other additional questions about the food choices of adolescents were also asked. Adolescents were asked to estimate the total amount of calories they consumed in their

food order. The researcher assumed the consumers were correct if their estimate fell within 100 calories of the real amount.

Results

427 children and adolescents were sampled across New York and Newark, with 78 respondents excluded because they indicated that they shared the food listed on the receipt. Overall, the respondents purchased an average of 645 calories. The researchers did not observe any differences before or after calorie labeling in NYC or Newark. 57% of the group in NYC and 18% in Newark reported that they noticed calorie labeling. In total, 9% indicated that the labeling influenced their food choice, with also 9% stating that they purchased fewer calories as a result of the labeling. Taste was rated as most important by 72% of the respondents, but they did not appear to be purchasing more calories. 46% claimed that price was not a factor in their food choice. Furthermore, most adolescents underestimated the number of calories in their meals. In NY, 63% underestimated it before labeling, and 59% underestimated it after labeling.

Conclusion

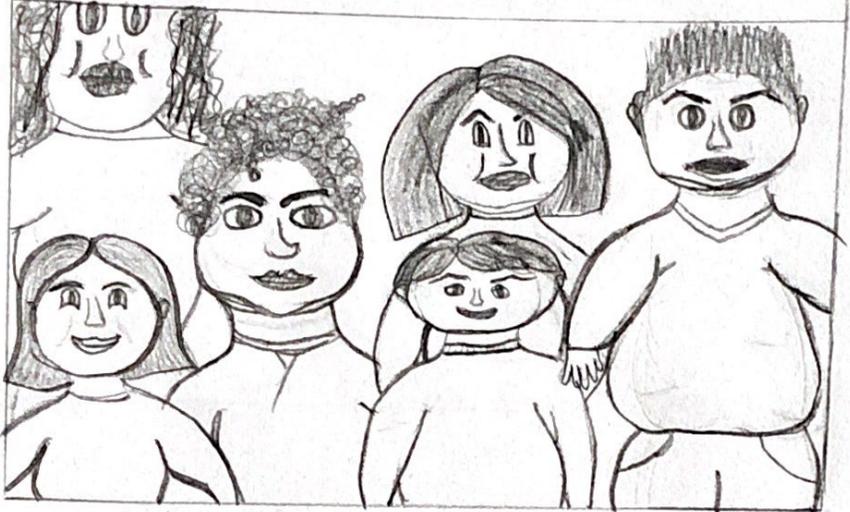
In conclusion, this study examined the effects of calorie labeling in a natural environment among children and adolescents in low-income areas in NYC and comparison city Newark. Although most parents and adolescents claimed to see the calorie information, it had no significant effect on food choices.

References

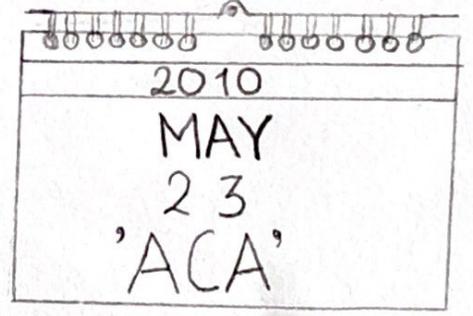
Elbel, B., Gyamfi, J., & Kersh, R. (2011). Child and adolescent fast-food choice and the influence of calorie labeling: a natural experiment. *International Journal of Obesity*, 35(4), 493–500. <https://doi.org/10.1038/ijo.2011.4>

1

In 2010, after a fear of an "obesity Epidemic", the government introduced a new Law...



... which is called "The Patient Protection and Affordable Care Act".

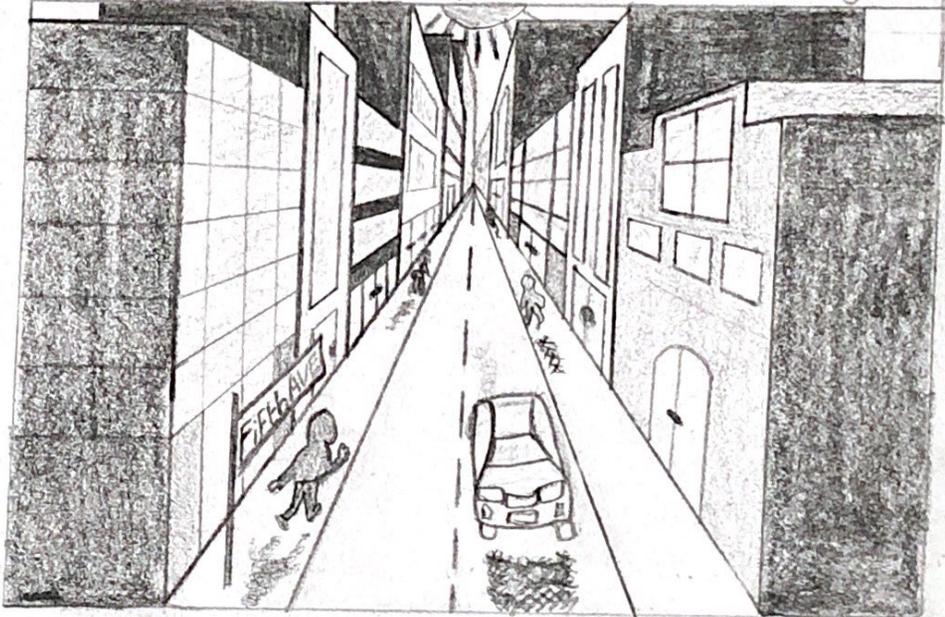


This law also includes Calorie Labeling in Restaurants

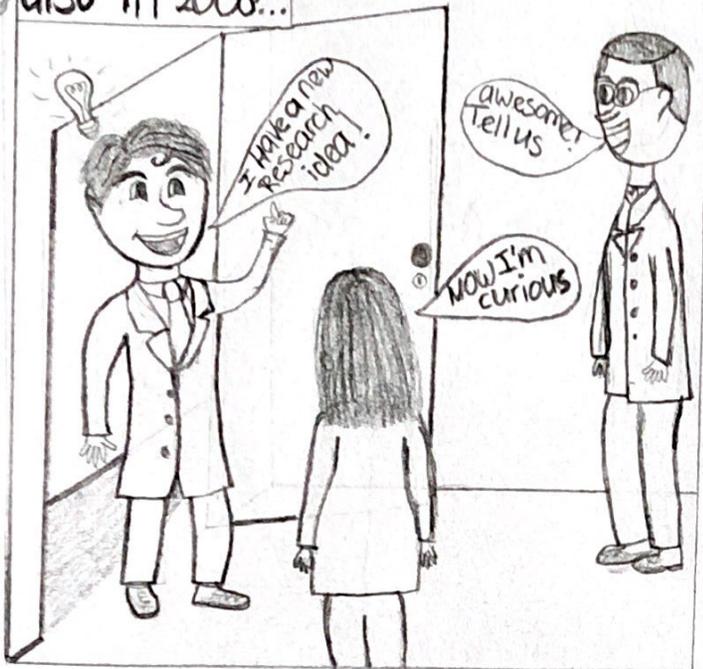
 Big Mac 689 cal.	Salad 240 cal.
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TGI Fridays MENU	
Hamburger 370 cal.	Milkshake 400 cal.
Cheeseburger 420 cal.	Coca Cola 230 cal.
French Fries 295 cal.	Lemonade 100 cal.
Cheese Fries 350 cal.	Ice cream 310 cal.

Let's throw it back to 2008, When New York City and several other cities already practised calorie labeling.



2 also in 2008...



Restaurants from fast-food chains McDonald's, Burger King, Wendy's and Kentucky Fried chicken in New York City and comparison city Newark were surveyed.



3



Target group

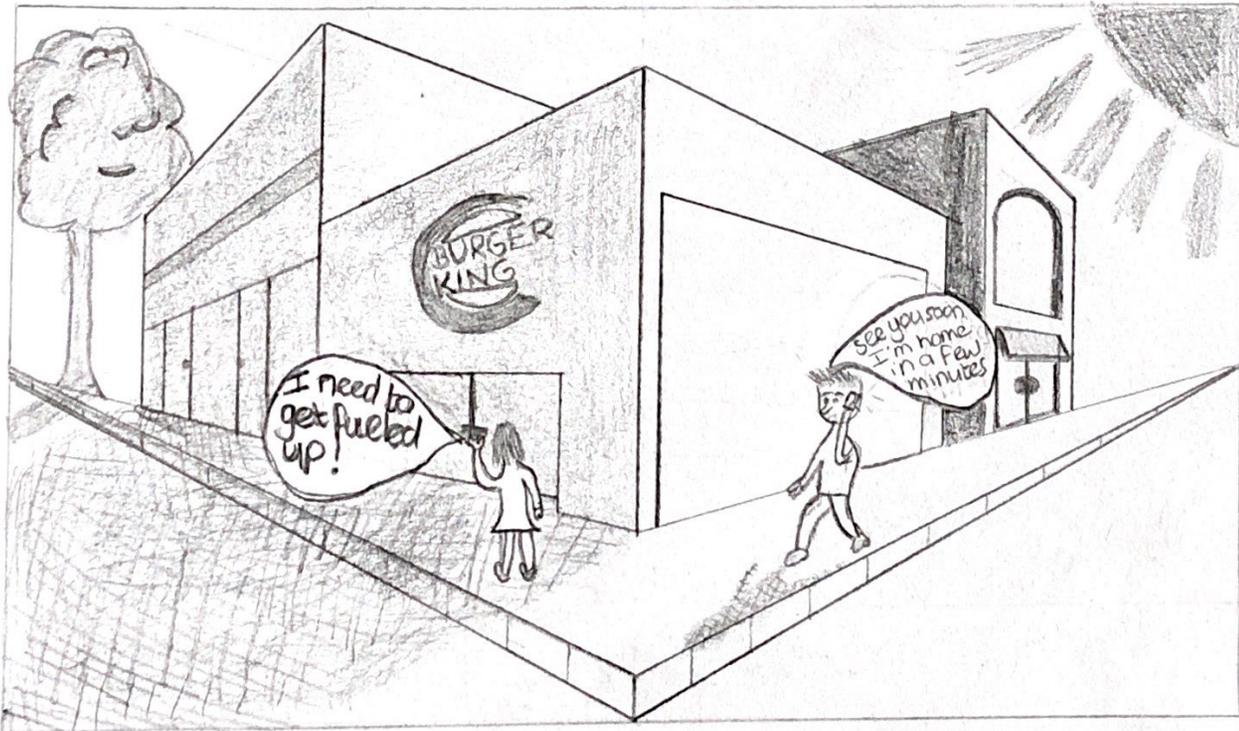
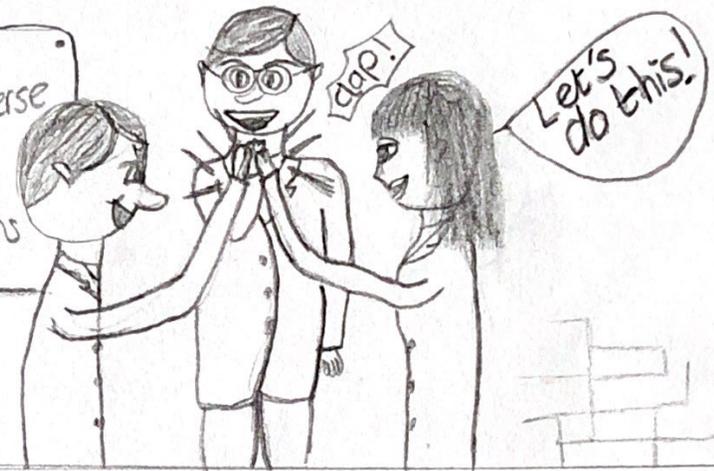
- Low income
- Racially and ethnically diverse

↳ Because:
Higher rate of obesity and health problems



and so, the experiment could begin...

our diverse
city
blems



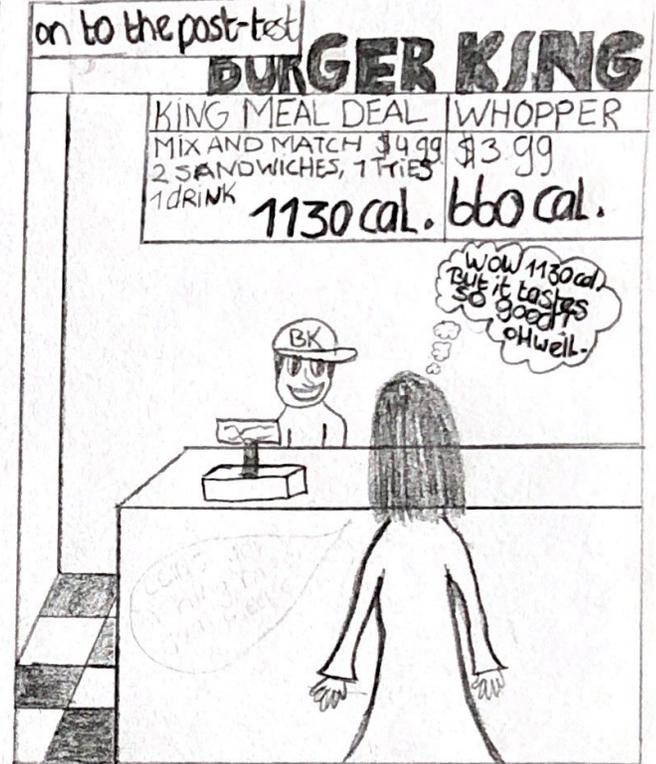
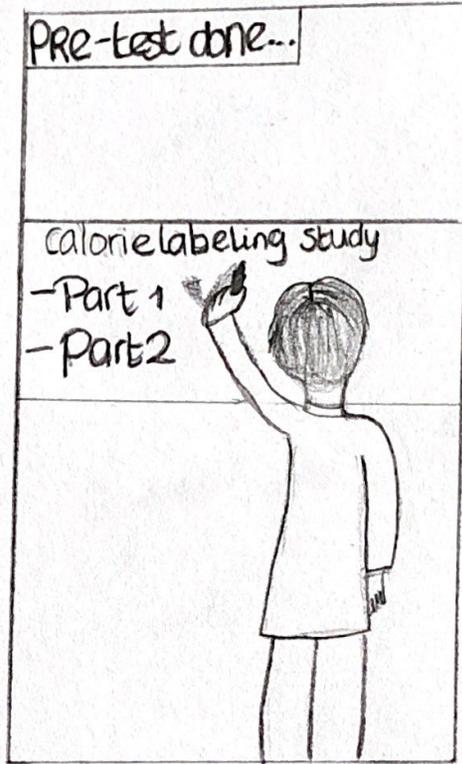
BURGER KING

KING MEAL DEAL	WHOPPER
MIX AND MATCH \$4.99 2 sandwiches, 1 fries, 1 drink.	\$3.99

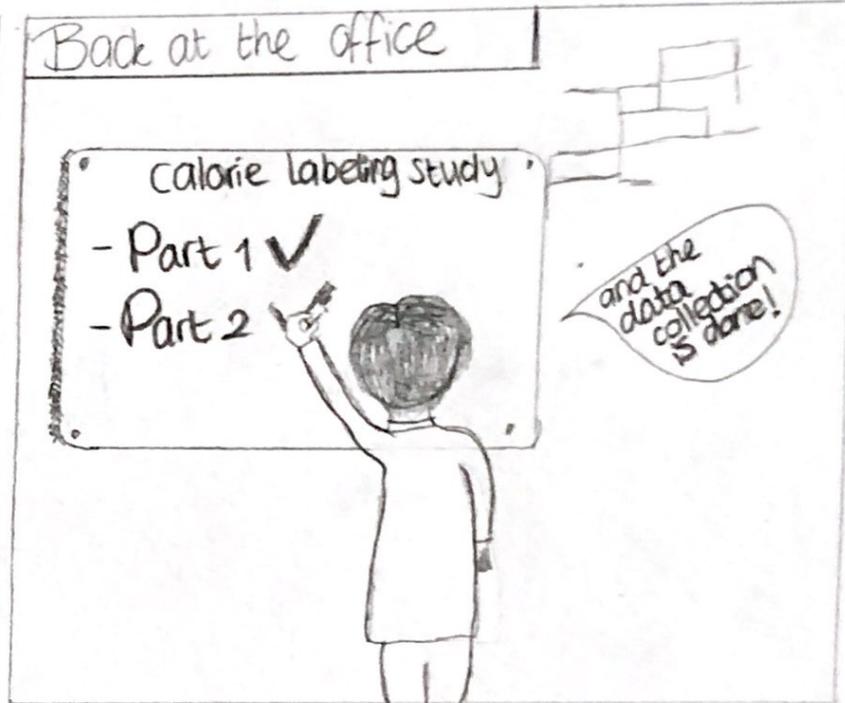
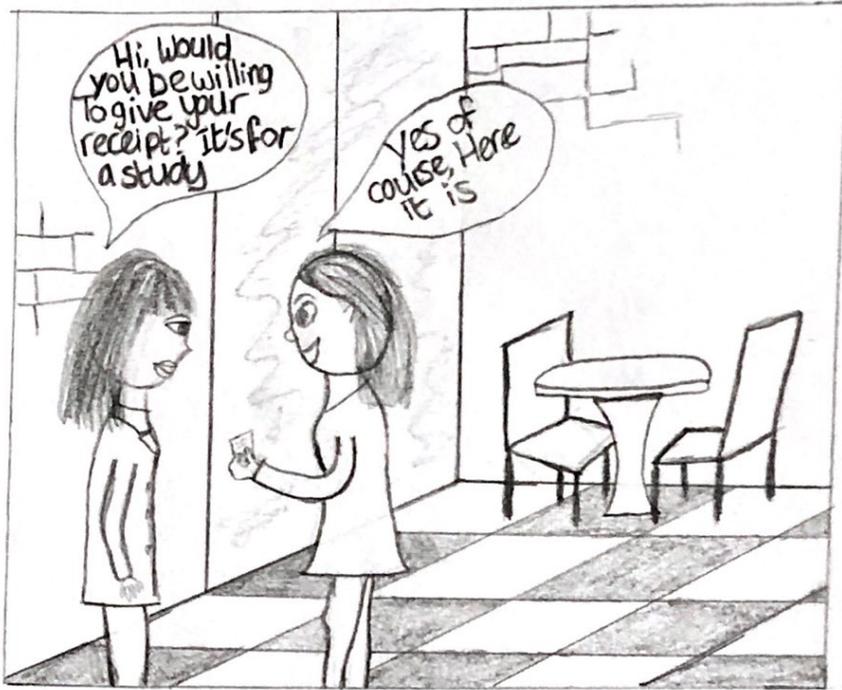
Coming right up!

Can I get a King meal deal please?

4



5



6

Results

- * 427 participants
- * average of 645 calories per food purchase
- * 57% in NYC and 18% noticed the calorie labeling

The results are in

Results

- * 9% stated that labeling influenced food choice
- * 9% stated that they purchased fewer calories

So, no significant difference between calorie labeling and no calorie labeling.

Room for improvement then

oh well, now I'm Hungry, should we go eat?

THE
END 