Coarse and Precise Information in Food Labeling

JOB MARKET PAPER

Silvio Ravaioli*

September, 2021

Abstract

Public authorities and companies often adopt simple categorical labels to convey information and promote healthy, ethical, or energy-friendly behavior. These labels tend to provide coarse information: for example, food front-of-package labels might report low-fat but not the exact fat content. In this paper I study how labels with different precision affect choices: can precision become “too much” and impair choices?

In a preregistered online study conducted on a representative US sample, I manipulate the precision of front-of-package labels about foods’ calorie content. Coarse labels generate healthier choices compared to more detailed ones (-2% calories, -3% high-calorie products chosen), despite providing less information. Participants also declare they prefer coarse labels.

Choices are at odds with the predictions of a Bayesian updating model, showing that participants are less sensitive to detailed information. A behavioral model with noisy mental representation of the label information can capture the main results. When detailed labels are more complex and harder to understand, consumers face a tradeoff between simplicity and precision. Some information helps, but too much detail can be confusing, and lead to less healthy food choices.

Keywords: Consumer Behavior, Nutrition, Food Labels, Experiment, Attention.

JEL codes: C91, D83, D91, Q28.

*Department of Economics, Columbia University, 420 West 118th Street, 10027 New York. E-mail address sr3300@columbia.edu. Many thanks to Mark Dean and Michael Woodford for the invaluable advice and support on this project. I also thank Alessandra Casella, Eric Johnson, Jacopo Perego, Bernard Salanié, the participants at Columbia University’s Economics Department Colloquia, and the member of the Cognition and Decision Laboratory for the valuable feedback. This project has received funding from Columbia University’s Program for Economic Research and Columbia Experimental Laboratory for Social Sciences. All data were collected with the approval of the Columbia University Institutional Review Board (protocol AAAT5268). The experimental design, hypotheses, and sample size were preregistered on AER Social Science Registry under the name “Coarse and Granular Nutritional Labels” (trial AEARCTR-0007856).